

**CONTRACT DOCUMENTS
and
TECHNICAL SPECIFICATIONS
for
PAVEMENT MANAGEMENT PROGRAM**

December 2015



***City of*
Norfolk**

Department of Public Works

**7th Floor, City Hall Building
Norfolk, Virginia 23510
(757) 664-4631**

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CITY OF NORFOLK

PAVEMENT MANAGEMENT PROGRAM

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Posting Date: December 18, 2015

**INVITATION FOR BIDS
CITY OF NORFOLK - DEPARTMENT OF PUBLIC WORKS**

PROJECT: PAVEMENT MANAGEMENT PROGRAM – RESURFACING

Owner: City of Norfolk
Department of Public Works
810 Union Street, Room 700
Norfolk, VA 23510
Contact: Scott Smith, P.E., LS
Tel: (757) 823-4078 / Fax: (757) 823-4053

A&E: City of Norfolk
Department of Public Works
Division of Streets & Bridges
2233 McKann Ave.
Contact: Scott Smith, P.E., LS
Tel: (757) 823-4078

Sealed bids are to be received in Public Works Department, Attn: Contracts Office, Room 700, 7th floor, City Hall Building, 810 Union Street, Norfolk, VA 23510 until **3:00 p.m., Wednesday, January 27, 2016**, for the above titled Project.

The Work under this Project consists of the removal of existing asphalt, preparation of streets, and placement of hot mix asphalt overlay at various locations throughout the City of Norfolk. Work shall include, but not limited to, milling, clipping, hauling and disposal of materials, asphalt patching, asphalt overlay, adjustment and/or installation of utility fixtures, restoration of shoulders and driveways, traffic control loops, and clean up. Saw cutting and erosion control shall be incidental to all applicable terms. The Contractor shall furnish all labor, equipment, and materials to complete in place all items under the Contract.

The **BID PACKAGE** is available for downloading, at no cost, from the City of Norfolk's web site, <http://www.norfolk.gov/publicworks/bids.aspx>, and DemandStar www.demandstar.com. It can also be purchased from the Department of Public Works (757-664-4631) at the cost of **\$5.00 per CD**. A copy of the Bidding Documents will be on file and open to inspection at The Builders and Contractors Exchange, Inc., Norfolk, VA (757-858-0680).

A Bid Bond, certified check, or cashier's check made payable to the Treasurer, City of Norfolk, for 5% of total bid must accompany each bid.

State Contractor registration class and number is required on the outside of the envelope.

The City reserves the right to cancel the bid opening or to reject any or all bids in whole or part, when it is in the best interest of the City. The right to waive informalities and to determine responsiveness of any bid and responsibility of all bidders is reserved to the City. Withdrawal of bids will be in accordance with Section 33.1-42.1 of the Norfolk City Code and Section 11-54 of The Code of Virginia, 1950 (as amended).

David L. Ricks, P.E.
Director

The Virginian Pilot – December 20, 2015
DemandStar – December 20, 2015

INSTRUCTIONS TO BIDDERS

1. AUTHORIZATION TO TRANSACT BUSINESS IN THE COMMONWEALTH

(a) Bidder or offeror organized or authorized to transact business in the Commonwealth pursuant to Title 13.1 or Title 50 to include in its bid or proposal the identification number issued to it by the State Corporation Commission.

(b) Any bidder or offeror that is not required to be authorized to transact business in the Commonwealth as a foreign business entity under Title 13.1 or Title 50 or as otherwise required by law shall include in its bid or proposal a statement describing why⁶ the bidder or offeror is not required to be so authorized.

2. SUBMISSION OF BIDS

(a) Make all bids on "Bid Form" and seal in opaque envelope. The name of project, the contractor's name, address, and Virginia Contractor Registration Class and Number shall be placed on the outside of the envelope.

(b) If a contract is for \$120,000.00 or more, or if the total value of all such construction, removal, repair, or improvements undertaken by the bidder within any 12 month period is for \$750,000.00 or more, the bidder is required under Title 54, Chapter 11, Code of Virginia, 1950 (as amended), to show evidence of being licensed as a Class A Contractor. If a contract is \$7,500.00 or more, but less than \$120,000.00, or if the total value of all such construction, removal, repair or improvements undertaken by the bidder within any 12 month period is less than \$150,000, the bidder is required to show evidence of being licensed as a Class B Contractor. If a contract is \$1,000 or more, but less than \$7,500, or if the total value of all such construction, removal, repair or improvements undertaken by the bidder within any 12 month period is less than \$150,000, the bidder is required to show evidence of being licensed as a Class C Contractor. The bidder shall place on the bid above its signature its Virginia Contractor Registration Class and Number. If a contract is less than \$1,000.00, licensure is not required under Title 54, Chapter 11, Code of Virginia, 1950 (as amended).

(c) If bids are submitted by mail, enclose the above noted envelope in a second sealed, opaque envelope and address to: **City of Norfolk, Department of Public Works, Attn: Contracts Office, Room 700, 7th floor, City Hall Building, 810 Union St., Norfolk, VA 23510.** Bids submitted by mail must be received at the above address before the time designated for bid opening.

(d) Fully fill in all blanks in ink or typewritten, and state numbers in both writing and figures. Signatures shall be in longhand with name and title printed below. Bidders shall acknowledge all addenda in spaces provided on the bid form. For unit price contracts, in the event of a discrepancy between the Total Base Bid and the total of the extension of unit prices, the total extension of unit prices governs in determining the bid amount.

(e) Interlineations, alterations, and irregularities of any kind may be cause for rejection of the bid. Erasures or any physical changes on the form shall be initialed by the Bidder.

(f) Bidders may withdraw a bid after it has been submitted to the City any time prior to the stipulated time for opening such bids. Withdrawal of bids will be in accordance with Section 33.1-42.1 of the Norfolk City Code and Section 2.2-4330 of the Code of Virginia, 1950 (as amended).

3. EXAMINATION OF SITE

The bidder shall be responsible for having ascertained all pertinent local and existing conditions determinable by inspection and inquiry both on the site and adjacent thereto, including any other work being performed thereon, and shall include in its bid all cost attendant upon problems arising from said conditions existing at the time of

submission of its bid.

Reference is made to the Contract Documents for information relating to reports, explorations, underground facilities, and easements. On request, the owner will provide each Bidder access to the site to conduct such examinations, investigations, explorations, tests and studies as each Bidder deems necessary for submission of a Bid. The Bidder must fill all holes, clean up, and restore the site to its former condition upon completion of such explorations, investigations, tests and studies, and hold the Owner harmless from any damage to property or injury to persons resulting from or arising out of such explorations, investigations, tests, and studies.

4. INQUIRIES, INTERPRETATION AND ADDENDA

Should a bidder find discrepancies in, or omissions from, the drawings or documents, or should it be in doubt as to their meaning, it should at once notify the Owner in writing. The Owner will welcome such inquiries and they will be given consideration. Every interpretation made by the Owner will be in the form of a printed addendum which will be on file in the office of the Owner. Addenda will be sent to each bidder, but it will be the bidder's responsibility to know of, examine and become familiar with all addenda issued. All addenda shall become a part of the Contract Documents. The Owner will not be responsible for any oral instruction.

The submission of a Bid will constitute inconvertible representation by the Bidder that the Bidder has complied with every requirement of this Section, that without exception, the Bid is premised upon the agreement by the Bidder to perform the Work required by the Contract Documents, and applying specific means, methods, techniques, sequence or procedures of construction (if any) that may be shown or indicated or expressly required by the Contract Documents, that the Bidder has given Written Notice to the Owner of all conflicts, errors, ambiguities, and discrepancies that the Bidder has discovered in the Contract Documents and the written resolutions thereof by the Owner is acceptable to the Bidder, and that the Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions of performance and furnishing the Work.

5. BID GUARANTEE

Bids shall be accompanied by a bid guarantee of five percent (5%) of the amount of the total bid including all additive alternates, if any, and may be a certified check or cashier's check or a Bid Bond, made payable to: **Treasurer, City of Norfolk**. Such bid bond or check shall be submitted with the understanding that it shall guarantee that the bidder will not withdraw its bid during the period of sixty (60) days following the opening of bids; that if its bid is accepted, it will enter into a Contract with the Owner in accordance with a form of agreement acceptable to and approved by the Owner and that the required Performance and Payment Bonds will be given; and that in the event of the withdrawal of said bid within said period, or failure to enter into said contract and given said bonds within ten (10) days after it has received notice of acceptance of its bid, the bidder shall be liable to the Owner for the full amount of the bid guarantee as representing the damage to the Owner on account of the default of the bidder in any particular thereof. The bid bonds and checks will be returned to the bidders after the Owner and the lowest, responsive, responsible bidder have executed a contract. If the required contract has not been executed within sixty (60) days after the date of the opening of the bids, then the bond or check of any bidder will be returned upon its request, provided it has not been notified of the acceptance of its bid prior to the date of such request.

6. PERFORMANCE AND PAYMENT BOND

The Contractor shall furnish a performance bond and a labor and material payment bond each in the amount of 100% of the contract price. Said bonds shall be delivered to the Owner (in duplicate) and shall be approved by the Owner prior to the execution of a construction contract between the Contractor and the Owner. Bonds shall be City of Norfolk standard form and shall be in accordance with Section 33.1-76 of the Norfolk City Code. All costs of bonds shall be paid by the Contractor. A bond rider will be required should change orders increase the amount of

the contract by \$100,000 or more.

7. NEGOTIATIONS WITH APPARENT LOW BIDDER

The City reserves the right to negotiate with the lowest, responsive, responsible bidder if the bid exceeds available funds. Negotiations may include reduction in bid price, modification and/or reduction in scope of the work, substitution of materials, or any other alterations to the work so that the low bid is reduced to within available funds including a reasonable fund balance for contingency funds to be available during the course of construction.

8. TIME OF COMPLETION

(a) Time is of the essence. All work shall be substantially completed within **Three Hundred Sixty Five (365) calendar days** from the Notice to Proceed. All work shall be final completed within **Five Hundred Forty Five (545) calendar days** from the Notice to Proceed. Work shall commence within (10) ten days from date of Notice to Proceed.

(b) Work shall not commence until the Contractor has received a fully executed copy of the Contract which authorizes the Work and has also received a Notice to Proceed issued by the authorized City representative. Work commenced prior to receipt of both a fully executed copy of the Contract and a written Notice to Proceed from an authorized City official shall be deemed unauthorized and such work will progress solely at Contractor's risk.

9. NON-DISCRIMINATION CLAUSE

The Contractor agrees to comply, and to require all suppliers and subcontractors paid in whole or in part from funds made available under this contract to comply with Section 122(a)(1) of the State and Local Fiscal Assistance Act of 1972 (P. L. 92-512), as amended, to wit:

"No person in the United States shall, on the grounds of race, color, national origin, or sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity of a State government or unit of local government, which government or unit receives funds made available under Subtitle A (of Title I of the Act.)

Any prohibition against discrimination on the basis of age under the Age Discrimination Act of 1975 or with respect to an otherwise qualified handicapped individual as provided in Section 504 of the Rehabilitation Act of 1973 shall also apply to any such program or activity.

Any prohibition against discrimination on the basis of religion, or any exemption from such prohibition, as provided in the Civil Rights Act of 1964 or Title VIII of the Act of April 11, 1968, hereafter referred to as the Civil Rights Act of 1968, shall also apply to any such program or activity."

Further, the Contractor agrees to comply with Section 33.1-53 of the Code of the City of Norfolk, Virginia 1979, as amended, regarding prohibited employment discrimination.

10. MINORITY BUSINESS CLAUSE

It is the policy of the City of Norfolk to facilitate the establishment, preservation, and strengthening of small businesses and businesses owned by women and minorities and to encourage their participation in the City's procurement activities. Toward that end, the City encourages these firms to compete and encourages non-minority firms to provide for the participation of small businesses and businesses owned by women and minorities through partnerships, joint ventures, subcontracts, and other contractual opportunities. Bidders (offerors) are asked, as part of their submission, to describe any planned use of such businesses in fulfilling this contract.

11. NON-COLLUSION AFFIDAVIT

(a) Every bidder, by submitting a bid, shall be deemed to covenant, with regard to said bid, as follows:

(1) that said bid was arrived at independently without collusion, consultation, communication, or agreement for the purpose of restricting competition, as to any matter relating to such prices with any other bidder or with any competitor.

(2) that, unless otherwise required by law, the prices which have been quoted in the bid submitted have not been knowingly disclosed by the bidder and will not knowingly be disclosed by the bidder prior to opening, directly or indirectly, to any other bidder or to any competitor.

(3) that no attempt has been made or will be made by the bidder to induce any other person, partnership or corporation to submit or not to submit a bid for the purpose of restricting competition.

A bid shall not be considered for award nor shall any award be made where the bidder shall have failed to comply with a(1), a(2), or a(3) above.

(b) Every bidder, in addition to making the above covenants (a)(1), (a)(2) and (a)(3) will be required to provide the City of Norfolk, with the bid submitted, the affidavit contained herein.

(c) Every bidder will be required to disclose, with the submitted bid, the following information:

(1) the correct mailing address of the bidder.

(2) if a corporation, the name and current mailing address of the President, the Secretary and the Treasurer of the corporation.

(3) if a partnership, proprietorship or other firm, the name and current mailing address of each partner, proprietor or member of said firm.

(4) whether or not the bidder is associated with; owns, in whole or in part; or is owned, in whole or in part, or is a subsidiary of, any other bidder.

(d) The fact that a bidder (1) has published price lists, rates or tariffs covering items included in the submitted bid; (2) has informed prospective customers of proposed or pending publication of new or revised price lists for such items; or (3) has sold the same items to other customers at the same prices being bid, does not constitute a disclosure within the meaning of Subparagraph 9(a).

(e) Any bid submitted by a corporate bidder shall be deemed to have been authorized by the Board of Directors of the bidder and such authorization shall be deemed to include the signing and submission of the bid and the execution of the affidavit required in (b) above as the acts and deeds of the corporation.

12. SUBSTANCE ABUSE AND DRUG-FREE WORK PLACE

The Contractor agrees to comply with Section 33.1-58 of the Code of the City of Norfolk, Virginia, 1996, as amended, regarding substance Abuse and Drug-Free Work Place Policy.

Bids to be opened:	3:00 p.m., Wednesday January 27, 2016
Work to be Completed in:	365 calendar days
Liquidated Damages:	See Contract Article 3
Performance Bond:	100%
Payment Bond:	100%
Bid Bond:	5%

BID FORM

To: City of Norfolk
 Department of Public Works
 810 Union Street, Room 700
 Norfolk, Virginia 23510

A. UNIT PRICE BID

In compliance with the Invitation for Bids and Instructions to Bidders, the General Conditions of the Contract (as amended), the contract drawings and specifications titled **PAVEMENT MANAGEMENT PROGRAM – RESURFACING** and all addenda issued to date, all of which are part of this bid, the undersigned hereby proposes to furnish all items, including materials, labor, and equipment called for by, and in strict accordance with Contract Documents and the list of unit prices hereto attached and referred to as Attachment A, for the sum of:

\$_____ Dollars (\$_____).

(Use words)

B. ADDENDA

The undersigned acknowledges receipt of the following addenda:

Addendum No. _____ Dated: _____

Addendum No. _____ Dated: _____

We agree to enter into a contract with the City of Norfolk, Virginia within ten (10) days of the award of same to us for the price named in our bid.

It is expressly agreed by us that the City of Norfolk, Virginia shall have the right to reject any and all bids and to waive any informalities.

In default of the performance on our part of the conditions of bid, our failure to enter into a contract with the City of Norfolk, Virginia, within the time above set, we herewith furnish a certified check, cashier's check (or Bid Bond) in the amount of \$_____, which shall be forfeited as liquidated damages to the City of Norfolk, Virginia, but otherwise the said check or Bid Bond shall be returned.

We agree to begin work ten (10) calendar days after receipt of the Notice to Proceed from the Director of Public Works and substantially complete all of the Work within **Three Hundred Sixty**

Five (365) calendar days.

C. Norfolk Businesses: It is the policy of the City to support Norfolk businesses and workforce development and it encourages companies with corporate offices in Norfolk and which employ Norfolk residents to compete for City contracts. Bidders are asked, as part of their submission, to advise of their Norfolk location and detail their employment of Norfolk residents.

D. Equal Opportunity Business Development: It is the policy of the City of Norfolk to facilitate the establishment, preservation, and strengthening of small businesses and businesses owned by women and minorities and to encourage their participation in the City's procurement activities. Toward that end, the City encourages these firms to compete and encourages non-minority firms to provide for the participation of small businesses and businesses owned by women and minorities through partnerships, joint ventures, subcontracts, and other contractual opportunities. Bidders (offerors) are asked, as part of their submission, to describe any planned use of such businesses.

1. Is your firm a minority owned business? Yes ___ No ___ If yes, please check the appropriate category: ___ African American (male), ___ African American (female), ___ Caucasian (female), ___ Hispanic (male), ___ Hispanic (female), ___ Asian American (male), ___ Asian American (female), ___ American Indian (male), ___ American Indian (female), ___ Eskimo (male), ___ Eskimo (female), ___ Aleut (male), ___ Aleut (female), ___ Other (male), ___ Other (female).

2. Subcontracting Opportunities for Small, Women Owned, Minority Business Enterprises and Disabled Veterans. All prime contractors are requested to furnish the following information regarding participation of small, women owned, minority business enterprises and disabled veterans:

a. Proposed Name of your Subcontractor(s):

b. Proposed Minority Category of Subcontractor(s) - please check the appropriate category(ies):

___ African American (male)	___ African American (female)
___ Hispanic (male)	___ Hispanic (female)
___ Asian American (male)	___ Asian American (female)
___ American Indian (male)	___ American Indian (female)
___ Eskimo (male)	___ Eskimo (female)
___ Aleut (male)	___ Aleut (female)
___ Other (male)	___ Caucasian (female)
	___ Other (female)

c. Proposed Amount of Subcontracts:

d. Proposed Description of commodity (i.e. masonry, hauling, insulation, etc.):

e. Proposed Description of Project:

f. Proposed Total value of awards to all subcontractors:

g. Proposed Total Number of minority subcontracts awarded:

h. If you do not propose the use of any subcontractors, please check here ____.

E. The undersigned has read all sections under "Instructions to Bidders."

F. **CONTRACTOR'S REGISTRATION AND SIGNATURE**

Registered Virginia Contractor Class and No. _____

City of Norfolk Business License No. _____

Contractor _____ Signed _____ (SEAL)

Date _____ Title _____

NOTE: If Bidder is a corporation, write state of incorporation under signature and if a partnership, give full names of all partners.

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AFFIDAVIT

City of Norfolk, Virginia project: _____
(insert project description)

Bid Date: _____

STATE OF VIRGINIA

(City/County)

This day personally appeared before the undersigned, a Notary Public in and for the City/County and State aforesaid,

_____, who having been first duly sworn according to law, did depose and aver as follows:

(a) That he is _____
(owner, partner, president, etc.)

of _____
(insert name of bidder)

(b) That he is personally familiar with the bid of

_____ submitted in connection with the above captioned City of Norfolk project.

(c) That said bid was formulated and submitted in good faith as the true bid of said bidder.

(d) That said bid in no manner violates the Sherman Antitrust Act (15 U.S.C. '1 *et seq.*), The Virginia Antitrust Act (§59.1-9.1 through §59.1-9.17 Code of Virginia, (1950), as amended) or the Conspiracy to Rig Bids to Government Act (§§59.1-68.8, Code of Virginia (1950), as amended.

And further this deponent saith not.

Affiant

Subscribed and sworn to before me this _____ day of _____, 20__.

My commission expires: _____, 20__

Notary Public

MAILING ADDRESS, FAX AND TELEPHONE NUMBER OF BIDDER:

IF CORPORATION, PROVIDE NAME AND MAILING ADDRESS AS REQUIRED BELOW

PRESIDENT

SECRETARY

TREASURER

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IF PARTNERSHIP, PROPRIETORSHIP, OR OTHER FIRM, PROVIDE NAME AND MAILING ADDRESS OF EACH PARTNER, PROPRIETOR, OR MEMBER OF FIRM.

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A. COMPLIANCE WITH STATE LAW

B. AUTHORIZATION TO TRANSACT BUSINESS IN THE COMMONWEALTH

I. CERTIFICATION

A. The Bidder/Vendor (Please fill in with your enterprise's complete name)

certifies that it is organized or authorized to transact business in the Commonwealth pursuant to Title 13.1 or Title 50.

The identification number issued to Bidder/Vender by the State Corporation Commission:

B. Bidder/Vendor that is not required to be authorized to transact business in the Commonwealth as a foreign business entity under Title 13.1 or Title 50 or as otherwise required by law shall describe why it is not required to be so authorized:

Bidder/Vendor: _____

Signed: _____

Title: _____

Date: _____

II. **INSTRUCTIONS**

- a. The Bidder/Vendor shall provide immediate written notice to the Contracting Officer if, at any time prior to contract award, the Vendor learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
- b. A certification that any of the items in paragraph (a) of this provision exists will not necessarily result in withholding of an award under this solicitation. However, the certification will be considered in connection with a determination of the Bidder's/Vendor's responsibility. Failure of the Bidder/Vendor to furnish a certification or provide such additional information as requested by the appropriate City purchasing official may render the Bidder/Vendor non-responsible.
- c. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render, in good faith, the certification required by paragraph (a) of this provision. The knowledge and information of a Bidder/Vendor is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
- d. The certification in paragraph (a) of this provision is a material representation of fact upon which reliance was placed when making award. If it is later determined that the Bidder/Vendor knowingly rendered an erroneous certification, in addition to other remedies available to the City, the appropriate City purchasing official may terminate the contract resulting from this solicitation for default.

End of Page

SCHEDULE OF UNIT PRICES

PAVEMENT MANAGEMENT PROGRAM – RESURFACING

OWNER: CITY of NORFOLK, VIRGINIA

The unit prices have been computed in accordance with Subparagraph 7.3.3.2 of the General Conditions of the Contract for Construction (as amended). Bidder acknowledges that estimated quantities are not guaranteed, and are solely for the purpose of comparison of Bids, and final payment for all Unit Price Bid items will be based on actual quantities provided, determined as provided in the Contract Documents. The prices quoted shall include, without exception, all materials, labor, equipment, appliances, clean-up, applicable sales, use and other taxes, building permits or fees, and the Contractor's labor, overhead, profit, mobilization and other mark-ups, and in full accordance with the Specifications. Include allowance for waste where appropriate. The unit prices shall be maintained throughout the contract period. Unit prices shall be used in determining additions or deductions from the TOTAL CONTRACT AWARD amount in the event of changes in the work.

Item #	Description	Unit	Qty	Price	Extension
1	Asphalt (SM-9.5A)	TON	19,000		
2	Asphalt (SM-9.5D)	TON	9,000		
3	Type I Patching (Leveling and/or Scratch Course with SM-9.5A)	TON	1,000		
4	Type II Patching (BM-25 D)	SY	5000		
5	Install Speed Humps	LF	240		
6	Scarification and Re-Base (VDOT-21A)	SY	400		
7	Undercutting and Backfilling	SY	400		
8	Clipping Edges	SY	100		
9	Asphalt Removal from Gutter Pan	SY	500		
10	Milling (6' Edge, Variable Depth)	SY	2,500		
11	Milling (12' Edge, Variable Depth)	SY	400		
12	Milling (Full Width, 2" – 3" Maximum)	SY	250,300		
13	Milling (Full Width, Less than 2")	SY	2,000		
14	Prep Milling (1 ½" Typ.)	SY	2,000		
15	Install MH Rings	EA	20		
16	Install Pivoted MH Rings	EA	20		
17	Install Prefabricated Valve Box Fixtures	EA	60		
18	Adjust Manhole	EA	20		
19	Adjust Valve Box	EA	20		
20	Adjust MH Full Depth	EA	10		
21	Adjust Valve Box Full Depth	EA	20		
22	Adjust Manholes in Concrete	EA	10		
23	Adjust Valve Boxes in Concrete	EA	10		
Bid Items 10, 11, 12, and 13 reflect the value of reuse of reclaimed material of \$ _____ Per Ton.					

Item #	Description	Unit	Qty	Price	Extension
24	Herbicide	GAL	2		
25	Tree Trimming	LS	1		
26	Shoulder Restoration (VDOT Type 21A)	TON	25		
27	Shoulder Restoration (Topsoil)	LF	100		
28	Driveway Restoration (ROC)	TON	5		
29	TD-1A Loop	EA	40		
30	TD-1B Loop	EA	1		
31	TD-1C Loop	EA	16		
32	Traffic Control	LS	1		
33	Uniform Traffic Control	HR	200		
34	Variable Message Boards Rental	WK	15		
35	4" White Lines	LF	28,090		
36	4" Yellow Lines	LF	24,520		
37	6" White Lines	LF	620		
38	12" White Lines	LF	3,027		
39	24" White Lines	LF	2,017		
40	24" Yellow Lines	LF	50		
41	Turn Arrows	EA	68		
42	Only Legend	EA	18		
43	School Legend	EA	2		
44	R x R Legend	EA	7		
45	Sharrow Legend	EA	40		
46	Eradicate Markings	LF	500		
47	Snow Plowable Marker 1-Way	EA	800		
48	Snow Plowable Marker 2-Way	EA	600		
49	Snow Plowing Parking Lots	SF	1,400,000		
50	Snow Plowing and Hauling of City Streets	SF	1,400,000		

TOTAL UNIT PRICE BID:

_____ (\$_____)

CONTRACTOR'S SIGNATURE DATE

PG 64-22 Liquid Asphalt Binder Base Index: \$ _____ Per Ton.

PG 70-22 Liquid Asphalt Binder Base Index: \$ _____ Per Ton.

Attachment A-2

THE CITY OF NORFOLK, VIRGINIA

OFFICE OF THE CITY MANAGER

CONTRACT

THIS AGREEMENT, made as of the ____ day of _____, in the year **2016**, between the **City of Norfolk, Virginia**, acting by and through the City Manager, hereinafter styled the **City**, and

party of the second part, hereinafter styled the **Contractor**.

WITNESSETH, That whereas the City has awarded to the Contractors, in accordance with their bid of **January 27, 2016**, a contract for **PAVEMENT MANAGEMENT PROGRAM – RESURFACING** as described in specifications and drawings prepared therefor by the City of Norfolk, and on file in the office of the Director of Public Works of the City of Norfolk, Virginia.

ARTICLE 1 - THE WORK OF THIS CONTRACT

The Contractor shall fully execute the Work described in the Contract Documents, except to the extent specifically indicated in the Contract Documents to be the responsibility of others.

ARTICLE 2 - DATE OF COMMENCEMENT AND COMPLETION TIMES

The Contractor agrees to begin Work at such a date as the Director of Public Works Department, Norfolk, Virginia, shall notify it to begin via a Notice to Proceed letter, and that it will achieve Substantial Completion of the entire Work in accordance with Paragraph 9.8 of the General Conditions not later than **Three Hundred Sixty Five (365) consecutive calendar days** from the date of commencement. The Contractor further agrees to achieve Final Completion not later than **Five Hundred Forty Five (545) consecutive calendar days** from the original Notice to Proceed date.

ARTICLE 3 - LIQUIDATED DAMAGES

The Contractor and the City recognize that time is of the essence for this Agreement. In view of the difficulty of ascertaining the loss which the City will suffer by reason of delay in the performance of the Work, the Contractor and the City hereby agree upon as the Liquidated Damages set below that the City will suffer by reason of delay and/or default, and not as a penalty. Further, the City shall deduct and retain the amount of such Liquidated Damages out of the moneys which may be due or become due to the Contractor under this Contract.

Accordingly, should the Contractor fail to comply with the requirements set in the Special Provisions, Minimum Dollar Production Level, Page SP-1, and in accordance with the contract documents to the satisfaction and approval of the Engineer, the Contractors shall pay to the City of Norfolk, Virginia, **5 cents for every \$1.00** short of the monthly minimum dollar production requirements.

ARTICLE 4 - INCENTIVE BONUS

The Contractor and the City recognize that time is of the essence for this Agreement. In view of the difficulty of ascertaining the benefit which the City will incur by reason of acceleration in the performance of the Work, the Contractor and the City hereby agree upon as the Incentive Bonus set below. Further, the City shall pay the amount of such Incentive Bonus out of the moneys which may be due or become due to the Contractor under this Agreement.

Accordingly, should the Contractor comply with the requirements set in the Special Provisions, Incentive Bonus, Page SP-1, and in accordance with the contract documents to the satisfaction and approval of the Engineer, the City of Norfolk, Virginia shall pay to the Contractor, **5 cents for every \$1.00** over the monthly minimum dollar production requirements plus \$25,000.00.

ARTICLE 5 - CONTRACT PRICE

The City shall pay the Contractor for completion of the Work in accordance with the Contract Documents an amount in current funds equal to the sum of the amounts determined below subject to additions and deductions as provided in the Contract Documents:

For all Unit Price Work, an amount equal to the sum of the established unit prices hereto attached and referred to as Attachment A, a sum of:

_____ **Dollars and ____ Cents (\$____.)**

As provided in Subparagraph 7.3.3.2 of the AIA 201-2007, General Conditions of the Contract for Construction (as modified), estimated quantities are not guaranteed, and determinations of actual quantities and classifications are to be made by the Engineer's recommendation to the City.

ARTICLE 6 - PAYMENTS

Based upon applications for payment submitted to the Engineer by the Contractor and certificates for payment issued by the Engineer, the City shall make monthly progress payments on account of the contract sum to the Contractor as provided in the conditions of the contract as follows:

The City will pay the Contractor, on or about the thirtieth calendar day after receipt of a Request for Payment, ninety-five percent (95%) of the portion of the contract sum properly allocable to labor, materials, and equipment incorporated in the Work and ninety-five percent (95%) of the portion of the contract sum properly allocable to materials and equipment suitably stored at the site or at some other location agreed upon in writing by the parties, up to any twenty-fifth (25th) day of that month, less the aggregate of previous payments in each case; provided, however, that the owner, at any time after fifty percent (50%) of the Work has been completed, if it finds that satisfactory progress is being made, may make any of the remaining partial payments in full; and upon final completion, a sum sufficient to increase the total payment to one-hundred percent (100%) of the contract sum, less such retainage as the Engineer shall determine for all incomplete Work and unsettled claims. But such full payment or payments shall in no manner be construed as reducing the amount of the bond, or the liability of the surety thereon, until final completion and acceptance of all items of Work herein set forth.

The action of the Engineer by which the Contractor is to be bound according to the terms of this contract shall be that evidenced by his final estimate and certificate, all prior estimates upon which ninety-five percent (95%) or more may be made, being merely payment on account, and not payments for accepted Work, and subject to the correction of such final estimate, which may be made with notice to the Contractors.

ARTICLE 7 - CONTRACTOR'S REPRESENTATION

To induce the City to enter into this Contract, the Contractor makes the following representations:

A. Contractor has examined and carefully studied the Contract Documents and other related data identified in the Bidding Documents.

B. Contractor has visited the Site and become familiar with and is satisfied as to the general, local, and site conditions that may affect cost, progress, and performance of the Work.

C. Contractor is familiar with and is satisfied as to all federal, state, and local laws and regulations that may affect cost, progress, and performance of the Work.

D. Contractor has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or contiguous to the Site and all drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site which have been provided with the Contract Documents, and (2) reports and drawings of a hazardous environmental condition, if any, at the site, which have been provided with the Contract Documents.

E. Contractor has obtained and carefully studied (or assumes responsibility for having done so) all additional or supplementary examinations, investigations, explorations, tests, studies, and data concerning conditions (surface, subsurface, and underground facilities) at or contiguous to the Site which may affect cost, progress, or performance of the Work.

F. Contractor is aware of the general nature of Work to be performed by City and others at the Site that relates to the Work as indicated in the Contract Documents.

G. Contractor has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Contractor has discovered in the Contract Documents, and the written resolution thereof by Engineer is acceptable to Contractor.

H. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.

I. Contractor hereby certifies that they have familiarized themselves with Sections 33.1-86 through 33.1-93 of the Code of the City of Norfolk, Virginia, 1979, as amended, entitled "Ethics in Public Contracting," including the additional statutes set forth in Section 33.1-86 thereof, and further that all amounts received by the Contractor pursuant to this Contract are proper and in accordance therewith.

J. Contractor hereby certifies that at all times during which any term of this Contract is in effect, they do not and shall not knowingly employ any unauthorized alien. For purposes of this section, an

“unauthorized alien” shall mean any alien who is neither lawfully admitted for permanent residence in the United States nor authorized to be employed by either Title 8, section 1324a of the United States Code or the U.S. Attorney General.

K. Contractor hereby represents that it is organized as a stock or non-stock corporation, limited liability company, business trust, or limited partnership or registered as a registered limited liability partnership and is authorized to transact business in the Commonwealth as a domestic or foreign business entity if so required by Title 13.1 or Title 50 or as otherwise required by law.

ARTICLE 8 – CONTRACT DOCUMENTS

The Contract Documents consist of the following:

- a. Invitation for Bids
- b. Instructions to Bidders
- c. Bid Form
- d. Bid Bond
- e. Contract
- f. Performance Bond
- g. Payment Bond
- h. AIA A201-2007, “General Conditions of the Contract for Construction” (as modified)
- i. Certificate of Insurance
- j. Notice of Award
- k. Notice to Proceed
- l. Change Orders (if any)
- m. Other Documents as may be required by law or appended hereto
- n. Addendum (as listed in Bid Form)

Witness the following signatures and seals:

Witness:

Seal if
Incorporated

Contractor:

By: _____

Written Signature

Printed Signature

Title / Date

Contractor's State License No. _____

City of Norfolk Business License No. _____

Contents Approved:

Director of Public Works

Approved as to form and correctness:

Deputy City Attorney

CITY OF NORFOLK, VIRGINIA

City Manager

Attest: _____
City Clerk

Certification of Funds

I hereby certify that the money required for this contract (agreement, obligation or expenditure) is in the City Treasury to the credit of the fund from which it is to be drawn, and not appropriated for any other purpose.

Account: _____

Amount: _____

Contract No.: _____

Vendor Code: _____

Acting Director of Finance

Date

End of Page

PERFORMANCE BOND

Bond No. _____
Amount: \$ _____

KNOW ALL PERSONS BY THESE PRESENTS, that _____, _____, _____, _____, hereinafter called the Contractor and _____, a corporation duly organized and existing under and by virtue of the laws of the State of _____, hereinafter called the Surety, and authorized to transact business within the Commonwealth of Virginia as the Surety, are held and firmly bound unto the City of Norfolk as Owner, in the sum of _____ **Dollars and** _____ **Cents** (\$ _____), lawful money of the United States of America, for payment of which, well and truly be made to the Owner, the Contractor and the Surety bind themselves and each of their heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents as follows:

THE CONDITION OF THE ABOVE OBLIGATION IS SUCH THAT:

WHEREAS, the Contractor has executed and entered into a certain Agreement, hereto attached, with the Owner dated _____, **2016**, for

PAVEMENT MANAGEMENT PROGRAM – RESURFACING

NOW THEREFORE, if the Contractor, and its successors and assigns, shall at all times duly, promptly, and faithfully perform the Work and any alteration in or addition to the obligations of the Contractor arising thereunder, including the matter of infringement, if any, of patents or other proprietary rights, and shall assure all guarantees against defective workmanship and materials, including the guarantee period following final completion by the Contractor and final acceptance by the Owner and comply with all the covenants therein contained in the Specifications, Drawings, and other Contract Documents required to be performed by the Contractor, in the manner and within the times provided in the Agreement, and shall fully indemnify and save harmless the Owner from all costs and damage which it may suffer by reason or failure to do so, and shall fully reimburse and repay it all outlay and expenses which it may incur in making good any default, and reasonable counsel fees incurred in the prosecution of or defense of any action arising out of or in connection with any such default, then this obligation shall be void; otherwise to remain in full force and effect.

PROVIDED, HOWEVER, that the Surety, for value received, for itself and its successors and assigns, hereby stipulates and agrees that no change, extension of time, alteration, or addition to the terms of the Contract Documents or to the Work to be performed thereunder, or payment thereunder before the time required therein, or waiver of any provision thereof, or assignment, subletting or transfer thereof or any part thereof, shall in any way affect its obligation on this Bond, and it does hereby waive notice of any such change, extension of time, alteration, addition to the terms of the Contract Documents or any such payment, waiver, assignment, subcontract or transfer.

PROVIDED, FURTHER, that no final settlement between the Owner and the Contractor shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

Whenever Contractor shall be declared by Owner to be in default under the Contract, the Owner having performed Owner's obligations thereunder, the Owner shall have the right, at its option, to require the Surety to promptly proceed to remedy the default within 30 days of notice by proceeding or procuring others to proceed with completing the Agreement with its terms and conditions including the correction of any defective work and the provision of safety measures required as the result of such default; and all reserves, deferred payments, and other funds provided by the Agreement to be paid to Contractor shall be paid to Surety at the same times and under the same conditions as by the terms of that Agreement such fund would have been paid to Contractor had the Agreement been performed by Contractor; and Surety shall be entitled to such funds in preference to any assignee of Principal of any adverse claimant. Notwithstanding the above, the Owner shall have the right, with the approval of the Surety which shall

not be unreasonably withheld, to take over and assume completion of the Agreement and be promptly paid in cash by the Surety for the cost of such completion less the balance of the Contract price.

IN WITNESS WHEREOF, all above parties bounded together have executed this instrument this _____ day of _____, 2016, the name and corporate seal of each corporate party being hereto affixed and those presents duly signed by its undersigned representative, pursuant to authority of its governing body.

CONTRACTOR

(_____)

By: _____ (Seal)

Name: _____

Title: _____

Attest

SURETY

By: _____ (Seal)

Attest

APPROVED AS TO FORM: _____, 2016

City of Norfolk, OWNER

By: _____
Deputy City Attorney

NOTE: Date of Bond shall not be prior to the date of the Agreement. If the Contractor is a partnership, all partners shall execute the Bond.

IMPORTANT: The Surety named on this Bond shall be one who is licensed to conduct business in the Commonwealth of Virginia, and named in the current list of Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies, as published in Circular 570 (amended) by the Audit Staff Bureau of Accounts, U.S. Treasury Department. All Bonds signed by an agent shall be accompanied by a certified copy of the authority to act for the Surety at the time of signing of this Bond.

End of Page

PAYMENT BOND

Bond No. _____

Amount: \$ _____

KNOW ALL PERSONS BY THESE PRESENTS, that _____, hereinafter called the Contractor and _____, a corporation duly organized and existing under and by virtue of the laws of the State _____, hereinafter called the Surety, and authorized to transact business within the Commonwealth of Virginia as the Surety, are held and firmly bound unto the City of Norfolk as Owner, in the sum _____ **Dollars and** _____ **Cents** (\$ _____), lawful money of the United States of America, for payment of which, well and truly be made to the Owner, the Contractor and the Surety bind themselves and each of their heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents as follows:

THE CONDITION OF THE ABOVE OBLIGATION IS SUCH THAT:

WHEREAS, the Contractor has executed and entered into a certain Agreement, hereto attached, with the Owner dated _____, 2016, for

PAVEMENT MANAGEMENT PROGRAM – RESURFACING

NOW THEREFORE, if the Contractor shall promptly make payments to all persons, firms, subcontractors, and corporations furnishing materials for or performing labor in the prosecution of the Work provided for in the Agreement, and any authorized extension or modification thereof, including all amounts due for materials, lubricants, oil, gasoline, repairs on machinery, equipment, and tools consumed, used or rented in connection with the construction of the Work, and all insurance premiums on the Work, and for all labor performed in the Work, whether by Subcontractor or otherwise, then this obligation shall be void, otherwise to remain in full force and effect.

PROVIDED, HOWEVER, that the Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration, or addition to the terms of the Contract Documents or to the Work to be performed thereunder, shall in any way affect its obligation on this Bond, and it does hereby waive notice of any such change, extension of time, alteration, or addition to the terms of the Contract Documents.

PROVIDED, FURTHER, that no final settlement between the Owner and the Contractor shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

IN WITNESS WHEREOF, all above parties bounded together have executed this instrument this ____ day of _____, 2016, the name and corporate seal of each corporate party being hereto affixed and those presents duly signed by its undersigned representative, pursuant to authority of its governing body.

CONTRACTOR

(_____)

By: _____ (Seal)

Name: _____

Title: _____

Attest

SURETY

By: _____(Seal)

Attest

APPROVED AS TO FORM: _____, 2016

City of Norfolk, OWNER

By: _____
Deputy City Attorney

NOTE: Date of Bond shall not be prior to the date of the Agreement. If the Contractor is a partnership, all partners shall execute the Bond.

IMPORTANT: The Surety named on this Bond shall be one who is licensed to conduct business in the Commonwealth of Virginia, and named in the current list of Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies, as published in Circular 570 (amended) by the Audit Staff Bureau of Accounts, U.S. Treasury Department. All Bonds signed by an agent shall be accompanied by a certified copy of the authority to act for the Surety at the time of signing of this Bond.

End of Page



Document A201™ – 2007

General Conditions of the Contract for Construction

for the following PROJECT:

(Name and location or address)

Pavement Management Program - Resurfacing

THE CITY OF NORFOLK, a municipal corporation of the Commonwealth of Virginia,
hereinafter called the "City" or the OWNER:

(Name, legal status and address)

This document has important
legal consequences.

Consultation with an attorney
is encouraged with respect to
its completion or modification.

THE ARCHITECT:

(Name, legal status and address)

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Init.

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(1329748325)

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ARTICLE 1 GENERAL PROVISIONS

§ 1.1 BASIC DEFINITIONS

§ 1.1.1 THE CONTRACT DOCUMENTS

The Contract Documents are enumerated in the Agreement between the Owner and Contractor (hereinafter the Agreement) and consist of the Agreement, Conditions of the Contract (General, Supplementary and other Conditions), Drawings, Specifications, Addenda issued prior to execution of the Contract, other documents listed in the Agreement and Modifications issued after execution of the Contract. A Modification is (1) a written amendment to the Contract signed by both parties, (2) a Change Order, (3) a Construction Change Directive or (4) a written order for a minor change in the Work issued by the Architect. Unless specifically enumerated in the Agreement, the Contract Documents do not include the advertisement or invitation to bid, Instructions to Bidders, sample forms, other information furnished by the Owner in anticipation of receiving bids or proposals, the Contractor's bid or proposal, or portions of Addenda relating to bidding requirements.

§ 1.1.2 THE CONTRACT

The Contract Documents form the Contract for Construction. The Contract represents the entire and integrated agreement between the parties hereto and supersedes prior negotiations, representations or agreements, either written or oral. The Contract may be amended or modified only by a Modification. The Contract Documents shall not be construed to create a contractual relationship of any kind (1) between the Contractor and the Architect or the Architect's consultants, (2) between the Owner and a Subcontractor or a Sub-subcontractor, (3) between the Owner and the Architect or the Architect's consultants or (4) between any persons or entities other than the Owner and the Contractor. The Architect shall, however, be entitled to performance and enforcement of obligations under the Contract intended to facilitate performance of the Architect's duties.

§ 1.1.3 THE WORK

The term "Work" means the construction and services required by the Contract Documents, whether completed or partially completed, and includes all other labor, materials, equipment and services provided or to be provided by the Contractor to fulfill the Contractor's obligations. The Work may constitute the whole or a part of the Project.

§ 1.1.4 THE PROJECT

The Project is the total construction of which the Work performed under the Contract Documents may be the whole or a part and which may include construction by the Owner and by separate contractors.

§ 1.1.5 THE DRAWINGS

The Drawings are the graphic and pictorial portions of the Contract Documents showing the design, location and dimensions of the Work, generally including plans, elevations, sections, details, schedules and diagrams.

§ 1.1.6 THE SPECIFICATIONS

The Specifications are that portion of the Contract Documents consisting of the written requirements for materials, equipment, systems, standards and workmanship for the Work, and performance of related services.

§ 1.1.7 INSTRUMENTS OF SERVICE

Instruments of Service are representations, in any medium of expression now known or later developed, of the tangible and intangible creative work performed by the Architect and the Architect's consultants under their respective professional services agreements. Instruments of Service may include, without limitation, studies, surveys, models, sketches, drawings, specifications, and other similar materials.

§ 1.1.8 INITIAL DECISION MAKER

The Initial Decision Maker is the person identified in the Agreement to render initial decisions on Claims in accordance with Section 15.2 and certify termination of the Agreement under Section 14.2.2.

§ 1.2 CORRELATION AND INTENT OF THE CONTRACT DOCUMENTS

§ 1.2.1 The intent of the Contract Documents is to include all items necessary for the proper execution and completion of the Work by the Contractor. The Contract Documents are complementary, and what is required by one shall be as binding as if required by all; performance by the Contractor shall be required only to the extent consistent with the Contract Documents and reasonably inferable from them as being necessary to produce the indicated results, or from prevailing custom or trade usage as being required to produce the intended result whether or not specifically called for at no additional cost to the Owner.

§ 1.2.1.1 Should any conflict be found in the Contract Documents, the Architect/Engineer shall interpret or construe the Contract Documents so as to secure the most substantial and complete performance of the Work. In other words, the better quality or great quantity of work shall be provided in accordance with the Architect/Engineer's interpretation. The Architect/Engineer's decision in this matter shall be final.

§ 1.2.2 Organization of the Specifications into divisions, sections and articles, and arrangement of Drawings shall not control the Contractor in dividing the Work among Subcontractors or in establishing the extent of Work to be performed by any trade.

§ 1.2.3 Unless otherwise stated in the Contract Documents, words that have well-known technical or construction industry meanings are used in the Contract Documents in accordance with such recognized meanings.

§ 1.2.4 Wherever in the Contract Documents the words "as approved", "as directed", "as required", "acceptable", "satisfactory" and words of like import are used with references to the Work or its performance, and without further qualification, it shall mean as approved, as directed, as required by the Architect/Engineer and acceptable, satisfactory, etc. to the Architect/Engineer.

§ 1.2.5 The general character of the detailed work is shown on the Drawings, but minor modifications may be made on the shop drawings or mock-ups. Any details shall be worked out in relation to their location and their connection to other parts of the Work. Where on any drawings a portion of the Work is drawn out and the remainder is indicated in outline, the parts drawn out also apply to all other like portions of the Work. Where details or conditions are indicated but started only, such details or conditions shall be continued throughout the courses or parts in which they occur and shall also apply to all other similar parts in the Work unless otherwise indicated or specifically noted.

§ 1.3 CAPITALIZATION

Terms capitalized in these General Conditions include those that are (1) specifically defined, (2) the titles of numbered articles or (3) the titles of other documents published by the American Institute of Architects.

§ 1.4 INTERPRETATION

In the interest of brevity the Contract Documents frequently omit modifying words such as "all" and "any" and articles such as "the" and "an," but the fact that a modifier or an article is absent from one statement and appears in another is not intended to affect the interpretation of either statement.

Wherever the term "Architect" appears in this Agreement, it shall mean either Architect or Engineer.

§ 1.5 OWNERSHIP AND USE OF DRAWINGS, SPECIFICATIONS AND OTHER INSTRUMENTS OF SERVICE

§ 1.5.1 The drawings, specifications and other documents, including those in electronic form, prepared by the Architect and the Architect's consultants are Instruments of Service through which the Work to be executed by the Contractor is described. The Contractor may retain one record set. Neither the Contractor nor any Subcontractor, Sub-subcontractor or material or equipment supplier shall own or claim a copyright in the drawings, specifications and other documents prepared by the Architect or the Architect's consultants, and unless otherwise indicated the Architect and the Architect's consultants shall be deemed the authors and owners of their respective Instruments of Service, including the Drawings and Specifications, them, and will retain all common law, statutory and other reserved rights, including copyrights. The Contractor, in addition to the copyrights. All copies of Instruments of Service, except the Contractor's record set, shall be returned or suitably accounted for to the Architect, on request, upon completion of the Work. The drawings, specifications and other documents prepared by the Architect and the Architect's consultants, and copies thereof furnished to the Contractor, are for use solely with respect to this Project. As such, the City is hereby declared sole-owner of these documents in regards to this Project and will abide by the limitations described in Subparagraph 1.5.1. They are not to be used by the Contractor or any Subcontractor, Sub-subcontractor or material or equipment supplier on other projects or for additions to this Project outside the scope of the Work without the specific written consent of the Owner, Architect and the Architect's consultants. The Contractor, Subcontractors, Sub-subcontractors, and material or equipment suppliers shall not own or claim a copyright in the Instruments of Service. are authorized to use and reproduce applicable portions of the drawings, specifications and other documents prepared by the Architect and the Architect's consultants appropriate to and for use in the execution of their Work under the Contract Documents. All copies made under this authorization shall bear the statutory copyright notice, if any, shown on the drawings, specifications and other documents prepared by

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the Architect and the Architect's consultants. Submittal or distribution to meet official regulatory requirements or for other purposes in connection with this Project is not to be construed as publication in derogation of the Architect's or Architect's consultants' reserved rights.

~~§ 1.5.2 The Contractor, Subcontractors, Sub-subcontractors and material or equipment suppliers are authorized to use and reproduce the Instruments of Service provided to them solely and exclusively for execution of the Work. All copies made under this authorization shall bear the copyright notice, if any, shown on the Instruments of Service. The Contractor, Subcontractors, Sub-subcontractors, and material or equipment suppliers may not use the Instruments of Service on other projects or for additions to this Project outside the scope of the Work without the specific written consent of the Owner, Architect and the Architect's consultants.~~

§ 1.5.2. Intentionally Omitted.

§ 1.6 TRANSMISSION OF DATA IN DIGITAL FORM

If the parties intend to transmit Instruments of Service or any other information or documentation in digital form, they shall endeavor to establish necessary protocols governing such transmissions, unless otherwise already provided in the Agreement or the Contract Documents.

ARTICLE 2 OWNER

§ 2.1 GENERAL

§ 2.1.1 The Owner is the person or entity identified as such in the Agreement and is referred to throughout the Contract Documents as if singular in number. The Owner shall designate in writing a representative who shall have express authority to bind the Owner with respect to all matters requiring the Owner's approval or authorization. Except as otherwise provided in Section 4.2.1, the Architect does not have such authority. The term "Owner" means the Owner or the Owner's authorized representative.

§ 2.1.2 The Owner shall furnish to the Contractor within fifteen days after receipt of a written request, information necessary and relevant for the Contractor to evaluate, give notice of or enforce mechanic's lien rights. Such information shall include a correct statement of the record legal title to the property on which the Project is located, usually referred to as the site, and the Owner's interest therein.

§ 2.2 INFORMATION AND SERVICES REQUIRED OF THE OWNER

~~§ 2.2.1 Prior to commencement of the Work, the Contractor may request in writing that the Owner provide reasonable evidence that the Owner has made financial arrangements to fulfill the Owner's obligations under the Contract. Thereafter, the Contractor may only request such evidence if (1) the Owner fails to make payments to the Contractor as the Contract Documents require; (2) a change in the Work materially changes the Contract Sum; or (3) the Contractor identifies in writing a reasonable concern regarding the Owner's ability to make payment when due. The Owner shall furnish such evidence as a condition precedent to commencement or continuation of the Work or the portion of the Work affected by a material change. After the Owner furnishes the evidence, the Owner shall not materially vary such financial arrangements without prior notice to the Contractor.~~

§ 2.2.1. Intentionally Omitted.

§ 2.2.2 Except for permits and fees that are the responsibility of the Contractor under the Contract Documents, including those required under Section 3.7.1, the Owner shall secure and pay for necessary approvals, easements, assessments and charges required for construction, use or occupancy of permanent structures or for permanent changes in existing facilities. Unless otherwise specified, the following applies:

a. Water line taps, construction of pits for water taps and meter, and restoration of the area to its original condition shall be performed by the Contractor at its expense. Only new water meters shall be installed by City forces at the expense of project sponsor (i.e. the City or private developer). All the aforementioned shall be coordinated by the Contractor.

b. Sanitary taps and cleanouts shall be done by the Contractor or its Subcontractor at the Contractor's expense. HRSD tap fees will be paid by the Owner.

c. For gas and electrical work and associated meter installations, the Contractor shall be responsible for complete coordination of work with utilities, including provision of all necessary labor, equipment, and materials as required in the Contract Documents as well as payment of all resulting costs to aforesaid Work.

d. For telephone and cables, the Contractor shall be responsible for coordination of telephone trunk lines and cable installation with telephone/television company to the "point of penetration" to the facility, including provision of all necessary labor, equipment, and materials as required in the Contract Documents as well as payment of resulting costs to all aforesaid work.

§ 2.2.3 The Owner shall furnish surveys describing physical characteristics, legal limitations and utility locations for the site of the Project, and a legal description of the site. The Contractor shall be entitled to rely on the accuracy of information furnished by the ~~Owner-Owner~~, subject to Subparagraph 3.74, but shall exercise proper precautions relating to the safe performance of the Work.

§ 2.2.3.1 The Contractor shall be responsible for protecting pins, stakes, marks, hubs, and control points. Replacement of damaged or destroyed pins, stakes, marks, hubs or control points shall be conducted under the supervision of a surveyor licensed in the Commonwealth of Virginia, if required by the City, and at the Contractor's expense. The Contractor shall coordinate with the Survey Division of the Department of Public Works (664-4645) prior to resetting of points and shall provide certified documentation to include the reference/recovery sheet with swing ties for new benchmarks.

§ 2.2.4 The Owner shall furnish information or services required of the Owner by the Contract Documents with reasonable promptness. The Owner shall also furnish any other information or services under the Owner's control and relevant to the Contractor's performance of the Work with reasonable promptness after receiving the Contractor's written request for such information or services.

§ 2.2.5 Unless otherwise provided in the Contract Documents, the Owner shall furnish to the Contractor one ~~copy of the Contract Documents for purposes of making reproductions pursuant to Section 1.5.2.(1) CD~~ containing the drawings, specifications, and addendums, in PDF format, free of charge.

§ 2.3 OWNER'S RIGHT TO STOP THE WORK

If the Contractor fails to correct Work that is not in accordance with the requirements of the Contract Documents as required by Section 12.2 or repeatedly fails to carry out Work in accordance with the Contract Documents, the Owner may issue a written order to the Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, the right of the Owner to stop the Work shall not give rise to a duty on the part of the Owner to exercise this right for the benefit of the Contractor or any other person or entity, except to the extent required by Section 6.1.3.

§ 2.4 OWNER'S RIGHT TO CARRY OUT THE WORK

If the Contractor defaults or neglects to carry out the Work in accordance with the Contract Documents and fails within a ten-day period after receipt of written notice from the Owner to commence and continue correction of such default or neglect with diligence and promptness, the Owner may, without prejudice to other remedies the Owner may have, correct such deficiencies. In such case an appropriate Change Order shall be issued deducting from payments then or thereafter due the Contractor the reasonable cost of correcting such deficiencies, including Owner's expenses and compensation for the Architect's additional services made necessary by such default, neglect or failure. ~~Such action by the Owner and amounts charged to the Contractor are both subject to prior approval of the Architect.~~ ~~failure.~~ If payments then or thereafter due the Contractor are not sufficient to cover such amounts, the Contractor shall pay the difference to the Owner.

ARTICLE 3 CONTRACTOR

§ 3.1 GENERAL

§ 3.1.1 The Contractor is the person or entity identified as such in the Agreement and is referred to throughout the Contract Documents as if singular in number. The Contractor shall be lawfully licensed, if required in the jurisdiction where the Project is located. The Contractor shall designate in writing a representative who shall have express authority to bind the Contractor with respect to all matters under this Contract. The term "Contractor" means the Contractor or the Contractor's authorized representative.

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§ 3.1.2 The Contractor shall perform the Work in accordance with the Contract Documents.

§ 3.1.3 The Contractor shall not be relieved of obligations to perform the Work in accordance with the Contract Documents either by activities or duties of the Architect in the Architect's administration of the Contract, or by tests, inspections or approvals required or performed by persons or entities other than the Contractor.

§ 3.2 REVIEW OF CONTRACT DOCUMENTS AND FIELD CONDITIONS BY CONTRACTOR

§ 3.2.1 Execution of the Contract by the Contractor is a representation that the Contractor has visited the site, become generally familiar with local conditions under which the Work is to be performed and correlated personal observations with requirements of the Contract Documents.

§ 3.2.2 Because the Contract Documents are complementary, the Contractor shall, before starting each portion of the Work, carefully study and compare the various Contract Documents relative to that portion of the Work, as well as the information furnished by the Owner pursuant to Section 2.2.3, shall take field measurements of any existing conditions related to that portion of the Work, and shall observe any conditions at the site affecting it. These obligations are for the purpose of facilitating coordination and construction by the Contractor and are not for the purpose of discovering errors, omissions, or inconsistencies in the Contract Documents; however, the Contractor shall promptly report to the Architect any errors, inconsistencies or omissions discovered by or made known to the Contractor as a request for information in such form as the Architect may require. It is recognized that the Contractor's review is made in the Contractor's capacity as a contractor and not as a licensed design professional, unless otherwise specifically provided in the Contract Documents. Any failure by the Contractor to acquaint himself with such information shall not relieve him from the responsibility for successfully performing the Work.

.1 Dimensions of Work shall not be determined by scale or rule, but figured dimensions shall be used at all times.

.2 The Contractor shall verify all dimensions by measurement at the jobsite, and shall take any and all other measurements necessary to verify the drawings and to properly layout the Work.

.3 The study of the Contract Documents by the Contractor shall be made sufficiently in advance of the actual layout of the work so as to allow the Contract Documents to be interpreted or modified by the Architect.

§ 3.2.3 The Contractor is not required to ascertain that the Contract Documents are in accordance with applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of public authorities, but the Contractor shall promptly report to the Architect any nonconformity discovered by or made known to the Contractor as a request for information in such form as the Architect may require.

§ 3.2.4 If the Contractor believes that additional cost or time is involved because of clarifications or instructions issued by the Architect in response to the Contractor's notices or requests for information pursuant to Sections 3.2.2 or 3.2.3, the Contractor shall make Claims as provided in Article 15. If the Contractor fails to perform the obligations of Sections 3.2.2 or 3.2.3, the Contractor shall pay such costs and damages to the Owner as would have been avoided if the Contractor had performed such obligations. If the Contractor performs those obligations, the Contractor shall not be liable to the Owner or Architect for damages resulting from errors, inconsistencies or omissions in the Contract Documents, or for differences between field measurements or conditions and the Contract Documents, or for nonconformities of the Contract Documents to applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities. Documents unless the Contractor recognized such error, inconsistency, omission or difference and knowingly failed to report it to the Architect.

§ 3.3 SUPERVISION AND CONSTRUCTION PROCEDURES

§ 3.3.1 The Contractor shall supervise and direct the Work, using the Contractor's best skill and attention. The Contractor shall be solely responsible for, and have control over, construction means, methods, techniques, sequences and procedures and for coordinating all portions of the Work under the Contract, unless the Contract Documents give other specific instructions concerning these matters. If the Contract Documents give specific instructions concerning construction means, methods, techniques, sequences or procedures, the Contractor shall evaluate the jobsite safety thereof and, except as stated below, shall be fully and solely responsible for the jobsite safety of such means, methods, techniques, sequences or procedures. If the Contractor determines that such means,

methods, techniques, sequences or procedures may not be safe, the Contractor shall give timely written notice to the Owner and Architect and shall not proceed with that portion of the Work without further written instructions from the Architect. If the Contractor is then instructed to proceed with the required means, methods, techniques, sequences or procedures without acceptance of changes proposed by the Contractor, the Owner shall be solely responsible for any loss or damage arising solely from those Owner-required means, methods, techniques, sequences or procedures.

§ 3.3.2 The Contractor shall be responsible to the Owner for acts and omissions of the Contractor's employees, Subcontractors and their agents and employees, and other persons or entities performing portions of the Work for, or on behalf of, the Contractor or any of its Subcontractors.

§ 3.3.3 The Contractor shall be responsible for inspection of portions of Work already performed to determine that such portions are in proper condition to receive subsequent Work.

§ 3.4 LABOR AND MATERIALS

§ 3.4.1 Unless otherwise provided in the Contract Documents, the Contractor shall provide and pay for labor, materials, equipment, tools, construction equipment and machinery, water, heat, utilities, transportation, and other facilities and services necessary for proper execution and completion of the Work, whether temporary or permanent and whether or not incorporated or to be incorporated in the Work.

§ 3.4.2 Except in the case of minor changes in the Work authorized by the Architect in accordance with Sections 3.12.8 or 7.4, the Contractor may make substitutions only with the consent of the Owner, after evaluation by the Architect and in accordance with a Change Order or Construction Change Directive.

a. Substituted Materials. Request for approval of any substituted material and equipment for those specified or shown on the drawings shall be made in writing to the Engineer within 30 days after award of the Contract. If this request is not submitted, the Engineer reserves the right to have the Contractor furnish the material and equipment definitely specified or shown on the plans. The Contractor shall show, in writing, the monetary savings, improvement in quality, time savings, and other factors to be gained from the proposed substitute. Approval of substitute materials and equipment will be at the sole discretion of the Engineer.

b. Or Equal. It is not the intent of these specifications to exclude or omit products or any responsible manufacturer, if said products are equal in every respect to those mentioned herein. Whenever an article, or any class of materials is specified by trade name or byname of any particular patentee, manufacturer or dealer, it shall be taken as intending to mean equal thereto in quality, finish, size, durability and equally as serviceable for the purpose for which it is or they intended. Request for approval of any "equal" material or product for those specified or shown on the drawings shall be made in writing to the Engineer within 30 days after award of the Contract. If this request is not submitted, the Engineer reserves the right to have the Contractor furnish the material and products definitely specified and shown on the plans. The Contractor shall show, in writing, that the material or product being proposed is equal in every respect to that specified and shall provide all necessary supporting documentation requested by the Engineer. The quality shall be determined by the Engineer, and he alone shall be sole judge as to what materials or services will be accepted as equal. No substitution of materials, methods or services specified shall be made without written approval from the Engineer.

c. Materials and Equipment Manufacturer's Recommendation. All materials, equipment or other items specified by trade or manufacturer's name shall be handled, installed, erected or connected in strict conformity with the manufacturer's recommendations and/or specifications. By making requests for substitutions, the Contractor:

1. Represents that the Contractor has personally investigated the proposed substitute product and determined that it is equal or superior in all respects to that specified;

2. Represents that the Contractor will provide the same warranty for the substitution that the Contractor would for that specified;

3. Certifies that the cost data presented is complete and includes all related costs under this Contract except the Architect's redesign costs, and waives all claims for additional costs and time extensions related to the substitution which may subsequently become apparent; and

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4. Will coordinate the installation of the accepted substitute, making such changes as may be required for the Work to be complete in all respects.

§ 3.4.3 The Contractor shall enforce strict discipline and good order among the Contractor's employees and other persons carrying out the Work. The Contractor shall not permit employment of unfit persons or persons not properly skilled in tasks assigned to them.

§ 3.5 WARRANTY

The Contractor warrants to the Owner and Architect that materials and equipment furnished under the Contract will be of good quality and new unless the Contract Documents require or permit otherwise. The Contractor further warrants that the Work will conform to the requirements of the Contract Documents and will be free from defects, except for those inherent in the quality of the Work the Contract Documents require or permit. Work, materials, or equipment not conforming to these requirements may be considered defective. The Contractor's warranty excludes remedy for damage or defect caused by abuse, alterations to the Work not executed by the Contractor, improper or insufficient maintenance, improper operation, or normal wear and tear and normal usage. If required by the Architect, the Contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment.

§ 3.6 TAXES

The Contractor shall pay sales, consumer, use and similar taxes for the Work provided by the Contractor that are legally enacted when bids are received or negotiations concluded, whether or not yet effective or merely scheduled to go into effect.

§ 3.7 PERMITS, FEES, NOTICES AND COMPLIANCE WITH LAWS

§ 3.7.1 Unless otherwise provided in the Contract Documents, the Contractor shall secure and pay for the building permit as well as for other permits, fees, licenses, and inspections by government agencies necessary for proper execution and completion of the Work that are customarily secured after execution of the Contract and legally required at the time bids are received or negotiations concluded. The Contractor shall be advised that there is NO permit fee for new construction, additions, etc. for CITY-OWNED BUILDINGS. Before final payment is made on the Project, Contractor shall demonstrate that the necessary inspections, certificates of occupancy, clearance, and/or acceptance from the City, State, Federal, and/or private entities/organizations such as from the City's Building Official, Corps of Engineers, Department of Environmental Quality, etc. have been obtained.

§ 3.7.2 The Contractor shall comply with and give notices required by applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities applicable to performance of the Work.

§ 3.7.3 If the Contractor performs Work knowing it to be contrary to applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of public authorities, the Contractor shall assume appropriate responsibility for such Work and shall bear the costs attributable to correction.

§ 3.7.4 **Concealed or Unknown Conditions.** If the Contractor encounters conditions at the site that are (1) subsurface or otherwise concealed physical conditions that differ materially from those indicated in the Contract Documents or (2) unknown physical conditions of an unusual nature, that differ materially from those ordinarily found to exist and generally recognized as inherent in construction activities of the character provided for in the Contract Documents, the Contractor shall promptly provide notice to the Owner and the Architect before conditions are disturbed ~~and in no event later than 21 days after first observance of the conditions.~~ Contractor shall not disturb such condition or perform any Work in connection therewith (except as aforesaid) until receipt of written order to do so "except in an emergency as required by Paragraph 10.4.." The Architect will promptly investigate such conditions and, if the Architect determines that they differ materially and cause an increase or decrease in the Contractor's cost of, or time required for, performance of any part of the Work, will recommend an equitable adjustment in the Contract Sum or Contract Time, or both. If the Architect determines that the conditions at the site are not materially different from those indicated in the Contract Documents and that no change in the terms of the Contract is justified, the Architect shall promptly notify the Owner and Contractor in writing, stating the reasons. With respect to unforeseen Work that is paid on a Unit Price Basis, any adjustment in quantity and Contract price will be determined by the Architect/Engineer subject to the provisions of Subparagraph 15.1.5.3. Architect/Engineer will review with the Contractor the Architect/Engineer's preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or

otherwise). If either party disputes the Architect's determination or recommendation, that party may proceed as provided in Article 15.

§ 3.7.4.1 Possible Price and Times Adjustments. Contractor shall not be entitled to any adjustment in the Contract Price or Contract Terms if:

a. Contractor knew of the existence of such conditions at the time Contractor made a final commitment to Owner in respect to Contract price and Contract times by the submission of a Bid or becoming bound under a negotiated contract; or

b. The existence of such condition could reasonably have been discovered or revealed as a result of examination, investigation, exploration, test, or study of the Site and contiguous areas required by the bidding requirements or Contract Documents to be conducted by or for Contractor prior to Contractor's making such final commitment; or

c. Contractor failed to give written notice within the time and as required by Subparagraph 3.7.4.

§ 3.7.4.2 Subsurface and Physical Conditions. The Contract Documents identify:

a. Those reports of explorations and tests of subsurface conditions at or contiguous to the Site that the Architect/Engineer has used in preparing the Contract Documents.

b. Those drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site that the Architect/Engineer has used in preparing the Contract Documents.

§ 3.7.4.3 Limited Reliance by Contractor on Technical Data Authorized. Contractor may rely upon the accuracy of the "technical data" contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such "technical data", if any, shall be identified in Supplementary General Conditions. Contractor may not rely upon or make any claim against Owner, Architect/Engineer, or any of the Architect/Engineer's consultants with respect to:

a. The completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by the Contractor, and safety precautions and programs incident thereto; or

b. Any Contractor interpretation of or conclusion drawing from any "technical data" or any such data, interpretations, opinions, or information.

§ 3.7.5 If, in the course of the Work, the Contractor encounters human remains or recognizes the existence of burial markers, archaeological sites or wetlands not indicated in the Contract Documents, the Contractor shall immediately suspend any operations that would affect them and shall notify the Owner and Architect. Upon receipt of such notice, the Owner shall promptly take any action necessary to obtain governmental authorization required to resume the operations. The Contractor shall continue to suspend such operations until otherwise instructed by the Owner but shall continue with all other operations that do not affect those remains or features. Requests for adjustments in the Contract Sum and Contract Time arising from the existence of such remains or features may be made as provided in Article 15.

§ 3.8 ALLOWANCES

§ 3.8.1 The Contractor shall include in the Contract Sum all allowances stated in the Contract Documents. Items covered by allowances shall be supplied for such amounts and by such persons or entities as the Owner may direct, but the Contractor shall not be required to employ persons or entities to whom the Contractor has reasonable objection.

§ 3.8.2 Unless otherwise provided in the Contract Documents,

- .1 Allowances shall cover the cost to the Contractor of materials and equipment delivered at the site and all required taxes, less applicable trade discounts;

- .2 Contractor's costs for unloading and handling at the site, labor, installation costs, overhead, profit and other expenses contemplated for stated allowance amounts shall be included in the Contract Sum but not in the allowances; and
- .3 Whenever costs are more than or less than allowances, the Contract Sum shall be adjusted accordingly by Change Order. The amount of the Change Order shall reflect (1) the difference between actual costs and the allowances under Section 3.8.2.1 and (2) changes in Contractor's costs under Section 3.8.2.2. The Contractor shall attach with monthly invoices the original copy of sales invoices/receipts for materials or equipment that are covered under allowances.

§ 3.8.3 Materials and equipment under an allowance shall be selected by the Owner with reasonable promptness in sufficient time to avoid delay in the Work..

§ 3.9 SUPERINTENDENT

§ 3.9.1 The Contractor shall employ a competent superintendent and necessary assistants who shall be in attendance at the Project site during performance of the Work. The superintendent shall represent the Contractor, and communications given to the superintendent shall be as binding as if given to the Contractor. Important communications shall be confirmed in writing. Other communications shall be similarly confirmed on written request in each case.

1. The superintendent shall not be changed except with the consent of the Owner, unless the superintendent ceases to be in the Contractor's employ.

§ 3.9.2 The Contractor, as soon as practicable after award of the Contract, and prior to mobilization or proceeding with any work on site, shall furnish in writing to the Owner through the Architect the name and qualifications of a proposed superintendent. The Architect may reply within 14 days to the Contractor in writing stating (1) whether the Owner or the Architect has reasonable objection to the proposed superintendent or (2) that the Architect requires additional time to review. Failure of the Architect to reply within the 14 day period shall constitute notice of no reasonable objection.

§ 3.9.3 The Contractor shall not employ a proposed superintendent to whom the Owner or Architect has made reasonable and timely objection. The Contractor shall not change the superintendent without the Owner's consent, which shall not unreasonably be withheld or delayed.

§ 3.9.4 A qualified General Superintendent shall be present on the project site whenever work is being performed, unless otherwise authorized in writing by the Owner. The Contractor shall notify the Owner whenever the superintendent will be absent for four hours or more. This notification shall include the name of the designated substitute. Any substitute shall be familiar with the project and have the same authority of the primary superintendent. Verbal notification is acceptable for periods less than one full workday.

1. The qualified General Superintendent shall remain on site each day throughout all work days whenever contract work is performed through the punch list period and until all punch list items are complete. Lack of supervision shall constitute a reduction in the Contract Amount of General Conditions, Supervision, or other category which solely represents at the General Contractor's work responsibility, in the amount of \$250.00 per day, or any portion of a day, based on the amount indicated.

§ 3.9.5 The superintendent shall serve as a day to day point of contact on the Project for the Owner and shall, as a minimum, have the authority to:

a. Act on behalf of the Contractor;

b. Direct the work of Subcontractors;

c. Respond to directed changes in the schedule;

d. Provide detailed updates to and respond to inquiries from the Owner on the progress of the work;

e. Act upon verbal and written notification of non-conforming work;

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f. Respond to any complaints regarding the conduct or actions of any employee of the Contractor or any Subcontractor.

§ 3.10 CONTRACTOR'S CONSTRUCTION SCHEDULES

§ 3.10.1 The Contractor, promptly after being awarded the Contract, shall prepare and submit for the Owner's and Architect's information a Contractor's construction schedule for the Work. At the Pre-Construction Conference, the Contractor shall submit to the Engineer for its timely review a preliminary construction schedule indicating the times (number of days or dates) for starting and completing the various stages of the Work. The schedule shall not exceed time limits current under the Contract Documents, shall be revised at appropriate intervals as required by the conditions of the Work and Project, shall be related to the entire Project to the extent required by the Contract Documents, and shall provide for expeditious and practicable execution of the Work.

1. The progress schedule shall be in the form of a bar graph and shall identify each major or critical activity. The progress schedule shall be updated monthly. Five (5) copies of the updated progress schedule shall be submitted with each Application for Payment.

§ 3.10.2 The Contractor shall prepare a submittal schedule, promptly after being awarded the Contract and thereafter as necessary to maintain a current submittal schedule, and shall submit the schedule(s) for the Architect's approval. The Architect's approval shall not unreasonably be delayed or withheld. The submittal schedule shall (1) be coordinated with the Contractor's construction schedule, and (2) allow the Architect reasonable time to review submittals. If the Contractor fails to submit a submittal schedule, the Contractor shall not be entitled to any increase in Contract Sum or extension of Contract Time based on the time required for review of submittals.

§ 3.10.3 The Contractor shall perform the Work in general accordance with the most recent schedules submitted to the Owner and Architect.

§ 3.11 DOCUMENTS AND SAMPLES AT THE SITE

The Contractor shall maintain at the site for the Owner one copy of the Drawings, Specifications, Addenda, Change Orders and other Modifications, in good order and marked currently to indicate field changes and selections made during construction, and one copy of approved Shop Drawings, Product Data, Samples and similar required submittals. These shall be available to the Architect and shall be delivered to the Architect for submittal to the Owner upon completion of the Work as a record of the Work as constructed.

§ 3.12 SHOP DRAWINGS, PRODUCT DATA AND SAMPLES

§ 3.12.1 Shop Drawings are drawings, diagrams, schedules and other data specially prepared for the Work by the Contractor or a Subcontractor, Sub-subcontractor, manufacturer, supplier or distributor to illustrate some portion of the Work.

1. Reproduction of the Contract Drawings, or any portion thereof, shall not be acceptable.

§ 3.12.2 Product Data are illustrations, standard schedules, performance charts, instructions, brochures, diagrams and other information furnished by the Contractor to illustrate materials or equipment for some portion of the Work.

§ 3.12.3 Samples are physical examples that illustrate materials, equipment or workmanship and establish standards by which the Work will be judged.

§ 3.12.4 Shop Drawings, Product Data, Samples and similar submittals are not Contract Documents. Their purpose is to demonstrate the way by which the Contractor proposes to conform to the information given and the design concept expressed in the Contract Documents for those portions of the Work for which the Contract Documents require submittals. Review by the Architect is subject to the limitations of Section 4.2.7. Informational submittals upon which the Architect is not expected to take responsive action may be so identified in the Contract Documents. Submittals that are not required by the Contract Documents may be returned by the Architect without action.

§ 3.12.5 The Contractor shall review for compliance with the Contract Documents, approve and submit to the Architect Shop Drawings, Product Data, Samples and similar submittals required by the Contract Documents in accordance with the submittal schedule approved by the Architect or, in the absence of an approved submittal

schedule, with reasonable promptness and in such sequence as to cause no delay in the Work or in the activities of the Owner or of separate contractors.

The Contractor, within 15 days from the Notice to Proceed, shall submit to the Engineer for approval, a complete schedule of submittals for shop drawings and technical and/or engineering data sheets covering all items and equipment for this Contract as listed in each respective division. Submit for approval six (6) copies of certified Shop Drawings and technical data sheets plus sufficient copies for Contractor's use. Approval of the above submissions shall not relieve the Contractor from complying with the drawings and specifications, nor shall such approval be construed as a guarantee of the accuracy of dimensions or other covered items. The Engineer shall endeavor to process all drawings, data sheets, etc., within 21 calendar days of receipt unless impractical. Except for construction schedule and schedule of values that need to be turned over directly to the City for review/approval, the Contractor shall forward all other submittals for review/approval to only one clearing house. The City will notify the Contractor during the Pre-Construction Conference where to send these submittals.

1. Unless otherwise directed or specified, samples shall be submitted in duplicate. Samples shall be properly labeled, bearing the name and quality of material, name of the manufacturer, name of Project, name of the Contractor and the date of submission.

§ 3.12.6 By submitting Shop Drawings, Product Data, Samples and similar submittals, the Contractor represents to the Owner and Architect that the Contractor has (1) reviewed and approved them, (2) determined and verified materials, field measurements and field construction criteria related thereto, ~~or will do so and~~ (3) checked and coordinated the information contained within such submittals with the requirements of the Work and of the Contract Documents. All copies of Shop Drawings submitted for approval shall bear the following statement: "Checked and certified correct for conformance with Contract Documents." This statement shall be dated and signed by the Contractor and shall appear on each submittal. One copy of each approved submittal shall be kept at job site at all times.

§ 3.12.7 The Contractor shall perform no portion of the Work for which the Contract Documents require submittal and review of Shop Drawings, Product Data, Samples or similar submittals until the respective submittal has been approved by the Architect.

1. The Contractor shall furnish to the field as many prints of the approved Shop Drawings as may be required.

§ 3.12.8 The Work shall be in accordance with approved submittals except that the Contractor shall not be relieved of responsibility for deviations from requirements of the Contract Documents by the Architect's approval of Shop Drawings, Product Data, Samples or similar submittals unless the Contractor has specifically informed the Architect in writing of such deviation at the time of submittal and (1) the Architect has given written approval to the specific deviation as a minor change in the Work, or (2) a Change Order or Construction Change Directive has been issued authorizing the deviation. The Contractor shall not be relieved of responsibility for errors or omissions in Shop Drawings, Product Data, Samples or similar submittals by the Architect's approval thereof.

§ 3.12.9 The Contractor shall direct specific attention, in writing or on resubmitted Shop Drawings, Product Data, Samples or similar submittals, to revisions other than those requested by the Architect on previous submittals. In the absence of such written notice, the Architect's approval of a resubmission shall not apply to such revisions.

§ 3.12.10 The Contractor shall not be required to provide professional services that constitute the practice of architecture or engineering unless such services are specifically required by the Contract Documents for a portion of the Work or unless the Contractor needs to provide such services in order to carry out the Contractor's responsibilities for construction means, methods, techniques, sequences and procedures. The Contractor shall not be required to provide professional services in violation of applicable law. If professional design services or certifications by a design professional related to systems, materials or equipment are specifically required of the Contractor by the Contract Documents, the Owner and the Architect will specify all performance and design criteria that such services must satisfy. The Contractor shall cause such services or certifications to be provided by a properly licensed design professional, whose signature and seal shall appear on all drawings, calculations, specifications, certifications, Shop Drawings and other submittals prepared by such professional. Shop Drawings and other submittals related to the Work designed or certified by such professional, if prepared by others, shall bear

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such professional's written approval when submitted to the Architect. The Owner and the Architect shall be entitled to rely upon the adequacy, accuracy and completeness of the services, certifications and approvals performed or provided by such design professionals, provided the Owner and Architect have specified to the Contractor all performance and design criteria that such services must satisfy. Pursuant to this Section 3.12.10, the Architect will review, approve or take other appropriate action on submittals only for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents. The Contractor shall not be responsible for the adequacy of the performance and design criteria specified in the Contract Documents.

§ 3.13 USE OF SITE

The Contractor shall confine operations at the site to areas permitted by applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities and the Contract Documents and shall not unreasonably encumber the site with materials or equipment.

§ 3.14 CUTTING AND PATCHING

§ 3.14.1 The Contractor shall be responsible for cutting, fitting or patching required to complete the Work or to make its parts fit together properly. All areas requiring cutting, fitting and patching shall be restored to the condition existing prior to the cutting, fitting and patching, unless otherwise required by the Contract Documents.

§ 3.14.2 The Contractor shall not damage or endanger a portion of the Work or fully or partially completed construction of the Owner or separate contractors by cutting, patching or otherwise altering such construction, or by excavation. The Contractor shall not cut or otherwise alter such construction by the Owner or a separate contractor except with written consent of the Owner and of such separate contractor; such consent shall not be unreasonably withheld. The Contractor shall not unreasonably withhold from the Owner or a separate contractor the Contractor's consent to cutting or otherwise altering the Work.

§ 3.14.3 UNDERGROUND UTILITY DAMAGE PREVENTION ACT

The Contractor shall be required and agrees to comply with all the provisions of the Virginia Underground Utility Damage Prevention Act (Section 56-265.14, et seq. Code of Virginia, 1950, as amended) and hereby agrees to hold the City of Norfolk harmless against any loss, damages or claims of any nature whatsoever arising out of the Contractor's failure to comply with the requirements of said Act.

§ 3.15 CLEANING UP

§ 3.15.1 The Contractor shall keep the premises and surrounding area free from accumulation of waste materials or rubbish caused by operations under the Contract. At completion of the Work, the Contractor shall remove waste materials, rubbish, the Contractor's tools, construction equipment, machinery and surplus materials from and about the Project. In addition, immediately after the completion of the Work, or any portion thereof, the Contractor shall restore the facility, street, and surrounding area to a condition as clean as before the Work was begun. The drainage system shall also be inspected and cleaned by the Contractor. If done by the City or its agents, any expense the City may incur will be charged against the Contractor and deducted before Final Payment is made. The Contractor will be required to back fill along the edges of the sidewalks, driveways and curbs where settlement has occurred, and reshape and reslope where directed. Site must be maintained regularly according to State and City regulations, including regular grass cutting. During the progress of the Work, the sidewalks and portions of the streets adjoining the Work, or in its vicinity, must not be obstructed or littered, and the adjacent sidewalks and gutters must be kept clean as directed by the Engineer.

§ 3.15.2 If the Contractor fails to clean up as provided in the Contract Documents, the Owner may do so and Owner shall be entitled to reimbursement from the costs thereof shall be charged to the Contractor.

§ 3.16 ACCESS TO WORK

The Contractor shall provide the Owner and Architect access to the Work in preparation and progress wherever located.

§ 3.17 ROYALTIES, PATENTS AND COPYRIGHTS

The Contractor shall pay all royalties and license fees. The Contractor shall defend suits or claims for infringement of copyrights and patent rights and shall hold the Owner and Architect harmless from loss on account thereof, but

shall not be responsible for such defense or loss when a particular design, process or product of a particular manufacturer or manufacturers is required by the Contract Documents, or where the copyright violations are contained in Drawings, Specifications or other documents prepared by the Owner or Architect. However, if the Contractor has reason to believe that the required design, process or product is an infringement of a copyright or a patent, the Contractor shall be responsible for such loss unless such information is promptly furnished to the Architect.

§ 3.18 INDEMNIFICATION

§ 3.18.1 To the fullest extent permitted by law the Contractor shall indemnify and hold harmless the Owner, Architect, Architect's consultants, and agents and employees of any of them from and against claims, damages, losses and expenses, including but not limited to attorneys' fees, arising out of or resulting from performance of the Work, provided that such claim, damage, loss or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself), but only to the extent caused by the negligent acts or omissions of the Contractor, a Subcontractor, anyone directly or indirectly employed by them or anyone for whose acts they may be liable, regardless of whether or not such claim, damage, loss or expense is caused in part by a party indemnified hereunder. Such obligation shall not be construed to negate, abridge, or reduce other rights or obligations of indemnity ~~that which~~ would otherwise exist as to a party or person described in this Section 3.18.

§ 3.18.1.1 The requirements of this Paragraph 3.18 shall be incorporated into the Contractor's insurance policies in a manner approved by the Owner.

§ 3.18.2 In claims against any person or entity indemnified under this Section 3.18 by an employee of the Contractor, a Subcontractor, anyone directly or indirectly employed by them or anyone for whose acts they may be liable, the indemnification obligation under Section 3.18.1 shall not be limited by a limitation on amount or type of damages, compensation or benefits payable by or for the Contractor or a Subcontractor under workers' compensation acts, disability benefit acts or other employee benefit acts.

ARTICLE 4 ARCHITECT

§ 4.1 GENERAL

§ 4.1.1 ~~The Owner shall retain an architect~~ architect is the person lawfully licensed to practice architecture or an entity lawfully practicing architecture in the jurisdiction where the Project is located. That person or entity is identified as the Architect identified as such in the Agreement and is referred to throughout the Contract Documents as if singular in number. The term "Architect" means the Architect or the Architect's authorized representative.

§ 4.1.2 Duties, responsibilities and limitations of authority of the Architect as set forth in the Contract Documents shall not be restricted, modified or extended without written consent of the Owner, Contractor and Architect. Consent shall not be unreasonably withheld.

~~§ 4.1.3 If the employment of the Architect is terminated, the Owner shall employ a successor architect as to whom the Contractor has no reasonable objection and whose status under the Contract Documents shall be that of the Architect.~~

§ 4.1.3. Intentionally Omitted.

§ 4.2 ADMINISTRATION OF THE CONTRACT

§ 4.2.1 As the Owner's Project representative, the Consulting Architect/Engineer's duties, responsibilities and limitations of authority shall be presented during the Pre-Construction Conference. The Architect will provide administration of the Contract as described in the Contract Documents and will be an Owner's representative during construction until the date the Architect issues the final Certificate for Payment. The Architect will have authority to act on behalf of the Owner only to the extent provided in the Contract Documents.

§ 4.2.1.1 Engineer – An individual or entity having an Agreement with the Owner to furnish services as Owner's independent professional consultant with respect to the Project and who is identified as such in the Agreement.

§ 4.2.2 ~~The Architect~~ Architect, as a representative of the Owner, will visit the site at intervals appropriate to the stage of construction, or as otherwise agreed with the Owner, to become generally familiar with the the Contractor's

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operations (1) to become familiar with and to keep the Owner informed about the progress and quality of the portion of the Work completed, and to determine in general if the Work observed is being performed in a manner indicating that (2) to endeavor to guard the Owner against defects and deficiencies in the Work, when fully completed, will be in accordance with the Contract Documents. However, the Architect will not be required to make exhaustive or continuous on-site inspections to check the quality or quantity of the Work. The Architect will ~~not~~ neither have control over, charge of, or responsibility nor be responsible for, the construction means, methods, techniques, sequences or procedures, or for the safety precautions and programs in connection with the Work, since these are solely the Contractor's rights and responsibilities under the Contract Documents, except as provided in Section 3.3.1.

§ 4.2.3 On the basis of the site visits, the Architect will keep the Owner reasonably informed about the progress and quality of the portion of the Work completed, and report to the Owner (1) known deviations from the Contract Documents and from the most recent construction schedule submitted by the Contractor, and (2) defects and deficiencies observed in the Work. The Architect will not be responsible for the Contractor's failure to perform the Work in accordance with the requirements of the Contract Documents. The Architect will not have control over or charge of and will not be responsible for acts or omissions of the Contractor, Subcontractors, or their agents or employees, or any other persons or entities performing portions of the Work.

§ 4.2.4 COMMUNICATIONS FACILITATING CONTRACT ADMINISTRATION

Except as otherwise provided in the Contract Documents or when direct communications have been specially authorized, the Owner and Contractor shall endeavor to communicate with each other through the Architect about matters arising out of or relating to the Contract. Communications by and with the Architect's consultants shall be through the Architect. Communications by and with Subcontractors and material suppliers shall be through the Contractor. Communications by and with separate contractors shall be through the Owner.

§ 4.2.5 Based on the Architect's evaluations of the Contractor's Applications for Payment, the Architect will review and certify the amounts due the Contractor and will issue Certificates for Payment in such amounts.

§ 4.2.6 The Architect has authority to reject Work that does not conform to the Contract Documents. Whenever the Architect considers it necessary or advisable, the Architect will have authority to require inspection or testing of the Work in accordance with Sections 13.5.2 and 13.5.3, whether or not such Work is fabricated, installed or completed. However, neither this authority of the Architect nor a decision made in good faith either to exercise or not to exercise such authority shall give rise to a duty or responsibility of the Architect to the Contractor, Subcontractors, material and equipment suppliers, their agents or employees, or other persons or entities performing portions of the Work.

§ 4.2.7 The Architect will review and approve, or take other appropriate action upon, the Contractor's submittals such as Shop Drawings, Product Data and Samples, but only for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents. The Architect's action will be taken in accordance with the submittal schedule approved by the Architect or, in the absence of an approved submittal schedule, with reasonable promptness while allowing sufficient time in the Architect's professional judgment to permit adequate review. Review of such submittals is not conducted for the purpose of determining the accuracy and completeness of other details such as dimensions and quantities, or for substantiating instructions for installation or performance of equipment or systems, all of which remain the responsibility of the Contractor as required by the Contract Documents. The Architect's review of the Contractor's submittals shall not relieve the Contractor of the obligations under Sections 3.3, 3.5 and 3.12. The Architect's review shall not constitute approval of safety precautions or, unless otherwise specifically stated by the Architect, of any construction means, methods, techniques, sequences or procedures. The Architect's approval of a specific item shall not indicate approval of an assembly of which the item is a component.

§ 4.2.8 The Architect will prepare Change Orders and Construction Change Directives, and may authorize minor changes in the Work as provided in Section 7.4. The Architect will investigate and make determinations and recommendations regarding concealed and unknown conditions as provided in Section 3.7.4.

§ 4.2.9 The Architect will conduct inspections to determine the date or dates of Substantial Completion and the date of final completion; issue Certificates of Substantial Completion pursuant to Section 9.8; receive and forward to the Owner, for the Owner's review and records, written warranties and related documents required by the Contract and

assembled by the Contractor pursuant to Section 9.10; and issue a final Certificate for Payment pursuant to Section 9.10.

§ 4.2.10 If the Owner and Architect agree, the Architect will provide one or more project representatives to assist in carrying out the Architect's responsibilities at the site. The duties, responsibilities and limitations of authority of such project representatives shall be as set forth in an exhibit to be incorporated in the Contract Documents.

§ 4.2.11 The Architect will interpret and decide matters concerning performance under, and requirements of, the Contract Documents on written request of either the Owner or Contractor. The Architect's response to such requests will be made in writing within any time limits agreed upon or otherwise with reasonable promptness.

§ 4.2.12 Interpretations and decisions of the Architect will be consistent with the intent of, and reasonably inferable from, the Contract Documents and will be in writing or in the form of drawings. When making such interpretations and decisions, the Architect will endeavor to secure faithful performance by both Owner and Contractor, will not show partiality to either and will not be liable for results of interpretations or decisions rendered in good faith.

§ 4.2.13 The Architect's decisions on matters relating to aesthetic effect will be final if consistent with the intent expressed in the Contract Documents.

§ 4.2.14 The Architect will review and respond to requests for information about the Contract Documents. The Architect's response to such requests will be made in writing within any time limits agreed upon or otherwise with reasonable promptness. If appropriate, the Architect will prepare and issue supplemental Drawings and Specifications in response to the requests for information.

§ 4.2.15 PRE-CONSTRUCTION CONFERENCE. Before starting the Work, the Architect/Engineer/Owner will schedule a conference to review the requirements on such matters as Project supervision and on-site inspection, Shop Drawing schedules and submission, progress schedules and reports, payrolls, payments to contractors, contract change orders, insurance, safety, labor provisions and equal opportunity in employment and any other items pertinent to the Project. Present at the conference will be the Architect/Engineer, Owner, Project Representative, the Contractor, and its Superintendent for the project.

ARTICLE 5 SUBCONTRACTORS

§ 5.1 DEFINITIONS

§ 5.1.1 A Subcontractor is a person or entity who has a direct contract with the Contractor to perform a portion of the Work at the site. The term "Subcontractor" is referred to throughout the Contract Documents as if singular in number and means a Subcontractor or an authorized representative of the Subcontractor. The term "Subcontractor" does not include a separate contractor or subcontractors of a separate contractor.

§ 5.1.2 A Sub-subcontractor is a person or entity who has a direct or indirect contract with a Subcontractor to perform a portion of the Work at the site. The term "Sub-subcontractor" is referred to throughout the Contract Documents as if singular in number and means a Sub-subcontractor or an authorized representative of the Sub-subcontractor.

§ 5.2 AWARD OF SUBCONTRACTS AND OTHER CONTRACTS FOR PORTIONS OF THE WORK

§ 5.2.1 Unless otherwise stated in the Contract Documents or the bidding requirements, the Contractor, ~~as soon as practicable within 15 days~~ after award of the Contract, shall furnish in writing to the Owner through the Architect the names of persons or entities (including those who are to furnish materials or equipment fabricated to a special design) proposed for each principal portion of the Work. The Architect may reply within 14 days to the Contractor in writing stating (1) whether the Owner or the Architect has reasonable objection to any such proposed person or entity or (2) that the Architect requires additional time for review. Failure of the Owner or Architect to reply within the 14-day period shall constitute notice of no reasonable objection.

§ 5.2.2 The Contractor shall not contract with a proposed person or entity to whom the Owner or Architect has made reasonable and timely objection. The Contractor shall not be required to contract with anyone to whom the Contractor has made reasonable objection.

§ 5.2.3 If the Owner or Architect has reasonable objection to a person or entity proposed by the Contractor, the Contractor shall propose another to whom the Owner or Architect has no reasonable objection. ~~If the proposed but rejected Subcontractor was reasonably capable of performing the Work, the Contract Sum and Contract Time shall be increased or decreased by the difference, if any, occasioned by such change, and an appropriate Change Order shall be issued before commencement of the substitute Subcontractor's Work. However, no increase in the Contract Sum or Contract Time shall be allowed for such change unless the Contractor has acted promptly and responsively in submitting names as required.~~ objection.

§ 5.2.4 The Contractor shall not substitute a Subcontractor, person or entity previously selected if the Owner or Architect ~~Architect, upon written notice of such intent,~~ makes reasonable objection to such substitution.

§ 5.3 SUBCONTRACTUAL RELATIONS

By appropriate agreement, written where legally required for validity, the Contractor shall require each Subcontractor, to the extent of the Work to be performed by the Subcontractor, to be bound to the Contractor by terms of the Contract Documents, and to assume toward the Contractor all the obligations and responsibilities, including the responsibility for safety of the Subcontractor's Work, which the Contractor, by these Documents, assumes toward the Owner and Architect. Each subcontract agreement shall preserve and protect the rights of the Owner and Architect under the Contract Documents with respect to the Work to be performed by the Subcontractor so that subcontracting thereof will not prejudice such rights, and shall allow to the Subcontractor, unless specifically provided otherwise in the subcontract agreement, the benefit of all rights, remedies and redress against the Contractor that the Contractor, by the Contract Documents, has against the Owner. Where appropriate, the Contractor shall require each Subcontractor to enter into similar agreements with Sub-subcontractors. The Contractor shall make available to each proposed Subcontractor, prior to the execution of the subcontract agreement, copies of the Contract Documents to which the Subcontractor will be bound, and, upon written request of the Subcontractor, identify to the Subcontractor terms and conditions of the proposed subcontract agreement that may be at variance with the Contract Documents. Subcontractors will similarly make copies of applicable portions of such documents available to their respective proposed Sub-subcontractors.

§ 5.4 CONTINGENT ASSIGNMENT OF SUBCONTRACTS

§ 5.4.1 Each subcontract agreement for a portion of the Work is assigned by the Contractor to the Owner, provided that

- .1 assignment is effective only after termination of the Contract by the Owner for cause pursuant to Section 14.2 and only for those subcontract agreements that the Owner accepts by notifying the Subcontractor and Contractor in writing; and
- .2 assignment is subject to the prior rights of the surety, if any, obligated under bond relating to the Contract.

~~When the Owner accepts the assignment of a subcontract agreement, the Owner assumes the Contractor's rights and obligations under the subcontract.~~

§ 5.4.2 Upon such assignment, if the Work has been suspended for more than 30 days, the Subcontractor's compensation shall be equitably adjusted for increases in cost resulting from the suspension.

~~§ 5.4.3 Upon such assignment to the Owner under this Section 5.4, the Owner may further assign the subcontract to a successor contractor or other entity. If the Owner assigns the subcontract to a successor contractor or other entity, the Owner shall nevertheless remain legally responsible for all of the successor contractor's obligations under the subcontract.~~

§ 5.4.3. Intentionally Omitted.

§ 5.5 SUBCONTRACTORS COORDINATION OF WORK

Every subcontractor performing work that affects others shall provide for all requirements of the other trades, notwithstanding the Contractor's responsibility to coordinate the Work. Should the work provided by unsuitable for the application of work by any other subcontractor, the subcontractor shall notify the Contractor and the Engineer in writing immediately. The Contractor is required to forward a copy of correspondence from his subcontractors providing notice of unsuitable work.

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ARTICLE 6 CONSTRUCTION BY OWNER OR BY SEPARATE CONTRACTORS

§ 6.1 OWNER'S RIGHT TO PERFORM CONSTRUCTION AND TO AWARD SEPARATE CONTRACTS

§ 6.1.1 The Owner reserves the right to perform construction or operations related to the Project with the Owner's own forces, and to award separate contracts in connection with other portions of the Project or other construction or operations on the site under Conditions of the Contract identical or substantially similar to these including those portions related to insurance and waiver of subrogation. ~~If the Contractor claims that delay or additional cost is involved because of such action by the Owner, the Contractor shall make such Claim as provided in Article 15: subrogation..~~

§ 6.1.2 When separate contracts are awarded for different portions of the Project or other construction or operations on the site, the term "Contractor" in the Contract Documents in each case shall mean the Contractor who executes each separate Owner-Contractor Agreement.

§ 6.1.3 The Owner shall provide for coordination of the activities of the Owner's own forces and of each separate contractor with the Work of the Contractor, who shall cooperate with them. The Contractor shall participate with other separate contractors and the Owner in reviewing their construction schedules. The Contractor shall make any revisions to the construction schedule deemed necessary after a joint review and mutual agreement. The construction schedules shall then constitute the schedules to be used by the Contractor, separate contractors and the Owner until subsequently revised.

§ 6.1.4 Unless otherwise provided in the Contract Documents, when the Owner performs construction or operations related to the Project with the Owner's own forces, the Owner shall be deemed to be subject to the same obligations and to have the same rights that apply to the Contractor under the Conditions of the Contract, including, without excluding others, those stated in Article 3, this Article 6 and Articles 10, 11 and 12.

§ 6.2 MUTUAL RESPONSIBILITY

§ 6.2.1 The Contractor shall afford the Owner and separate contractors reasonable opportunity for introduction and storage of their materials and equipment and performance of their activities, and shall connect and coordinate the Contractor's construction and operations with theirs as required by the Contract Documents.

§ 6.2.2 If part of the Contractor's Work depends for proper execution or results upon construction or operations by the Owner or a separate contractor, the Contractor shall, prior to proceeding with that portion of the Work, promptly report to the Architect apparent discrepancies or defects in such other construction that would render it unsuitable for such proper execution and results. Failure of the Contractor so to report shall constitute an acknowledgment that the Owner's or separate contractor's completed or partially completed construction is fit and proper to receive the Contractor's Work, except as to defects not then reasonably discoverable.

§ 6.2.3 The Contractor shall reimburse the Owner for costs the Owner incurs that are payable to a separate contractor because of the Contractor's delays, improperly timed activities or defective construction. The Owner shall be responsible to the Contractor for costs the Contractor incurs because of a separate contractor's delays, improperly timed activities, damage to the Work or defective construction.

§ 6.2.4 The Contractor shall promptly remedy damage the Contractor wrongfully causes to completed or partially completed construction or to property of the Owner or separate contractors as provided in Section 10.2.5.

§ 6.2.5 The Owner and each separate contractor shall have the same responsibilities for cutting and patching as are described for the Contractor in Section 3.14.

§ 6.3 OWNER'S RIGHT TO CLEAN UP

If a dispute arises among the Contractor, separate contractors and the Owner as to the responsibility under their respective contracts for maintaining the premises and surrounding area free from waste materials and rubbish, the Owner may clean up and the Architect will allocate the cost among those responsible.

ARTICLE 7 CHANGES IN THE WORK

§ 7.1 GENERAL

§ 7.1.1 Changes in the Work may be accomplished after execution of the Contract, and without invalidating the Contract, by Change Order, Construction Change Directive or order for a minor change in the Work, subject to the limitations stated in this Article 7 and elsewhere in the Contract Documents.

§ 7.1.2 A Change Order shall be based upon agreement ~~among the Owner, Contractor and Architect; a Construction Change Directive requires agreement by the Owner and Architect and may or between the Owner and Contractor; a Construction Change Directive~~ may not be agreed to by the Contractor; an order for a minor change in the Work may be issued by the Architect alone.

§ 7.1.3 Changes in the Work shall be performed under applicable provisions of the Contract Documents, and the Contractor shall proceed promptly, unless otherwise provided in the Change Order, Construction Change Directive or order for a minor change in the Work.

§ 7.1.4 Modifications shall be in compliance with the Code of the City of Norfolk, Virginia, Chapter 33.1.

§ 7.2 CHANGE ORDERS

§ 7.2.1 A Change Order is a written instrument prepared by the Architect and signed by the Owner, Contractor and Architect stating their agreement upon all of the following:

- .1 The change in the Work;
- .2 The amount of the adjustment, if any, in the Contract Sum; and
- .3 The extent of the adjustment, if any, in the Contract Time.

§ 7.3 CONSTRUCTION CHANGE DIRECTIVES

§ 7.3.1 A Construction Change Directive is a written order prepared by the Architect and signed by the Owner and Architect, directing a change in the Work prior to agreement on adjustment, if any, in the Contract Sum or Contract Time, or both. The Owner may by Construction Change Directive, without invalidating the Contract, order changes in the Work within the general scope of the Contract consisting of additions, deletions or other revisions, the Contract Sum and Contract Time being adjusted accordingly.

§ 7.3.2 A Construction Change Directive shall be used in the absence of total agreement on the terms of a Change Order.

§ 7.3.3 If the Construction Change Directive provides for an adjustment to the Contract Sum, the adjustment shall be based on one of the following methods:

- .1 Mutual acceptance of a lump sum properly itemized and supported by sufficient substantiating data to permit evaluation;
- .2 ~~Unit prices stated in the Contract Documents or subsequently agreed upon; Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the unit price for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement. The estimated quantities of items of Unit Price work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Determinations of the actual quantities and classifications of Unit Price Work performed by Contractor will be made by Architect/Engineer's recommendation to the City as follows;~~

Architect/Engineer will review with Contractor the Architect/Engineer's preliminary determinations on such matters before rendering a written recommendation thereon (by endorsement of an Application for Payment or otherwise). City's written decision thereon (by approval of Application for Payment or otherwise) will be final and binding (except as modified by Architect/Engineer to reflect changed factual conditions or more accurate data) upon Contractor, subject to the provisions of Paragraph 7.3.4.

Each unit price will be deemed to include an amount considered by Contractor to be adequate to cover Contractor's overhead and profit for each separately identified item.

- .3 Cost to be determined in a manner agreed upon by the parties and a mutually acceptable fixed or percentage fee; or
- .4 As provided in Section 7.3.7.

§ 7.3.4 If unit prices are stated in the Contract Documents or subsequently agreed upon, and if quantities originally contemplated are materially changed in a proposed Change Order or Construction Change Directive so that application of such unit prices to quantities of Work proposed will cause substantial inequity to the Owner or Contractor, the applicable unit prices shall be equitably ~~adjusted~~ adjusted provided that there is no corresponding adjustment with respect to any other item of Work.

§ 7.3.5 Upon receipt of a Construction Change Directive, the Contractor shall promptly proceed with the change in the Work involved and advise the Architect of the Contractor's agreement or disagreement with the method, if any, provided in the Construction Change Directive for determining the proposed adjustment in the Contract Sum or Contract Time.

§ 7.3.6 A Construction Change Directive signed by the Contractor indicates the Contractor's agreement therewith, including adjustment in Contract Sum and Contract Time or the method for determining them. Such agreement shall be effective immediately and shall be recorded as a Change Order.

§ 7.3.7 If the Contractor does not respond promptly or disagrees with the method for adjustment in the Contract Sum, the Architect shall determine the method and the adjustment on the basis of reasonable expenditures and savings of those performing the Work attributable to the change, including, in case of an increase in the Contract Sum, an amount for overhead and profit as set forth in the Agreement, or if no such amount is set forth in the Agreement, a reasonable amount. In such case, and also under Section 7.3.3.3, the Contractor shall keep and present, in such form as the Architect may prescribe, an itemized accounting together with appropriate supporting data. Unless otherwise provided in the Contract Documents, costs for the purposes of this Section 7.3.7 shall be limited to the following:

- .1 Costs of labor, including social security, old age and unemployment insurance, fringe benefits required by agreement or custom, and workers' compensation insurance;
- .2 Costs of materials, supplies and equipment, including cost of transportation, whether incorporated or consumed;
- .3 Rental costs of machinery and equipment, exclusive of hand tools, whether rented from the Contractor or others;
- .4 Costs of premiums for all bonds and insurance, permit fees, and sales, use or similar taxes related to the Work; and Overhead and profit costs, except where such costs have been determined by means of Paragraph 7.3.3.2 above, wherein such costs are included in the unit prices, shall be determined as follows::

Fifteen percent (15%) of the costs determined above shall be paid for overhead and profit of the Contractor or subcontractor(s) actually performing the work, including, but not limited to, field and home office expense, superintendent, taxes, subsistence expenses of any nature, premiums on bonds, insurance, and all other costs and expenses as determined by the City.

In the event the work is performed by a subcontractor or subcontractors, the Contractor shall be paid ten percent (10%) of the total costs determined above, excluding the subcontractor's or subcontractors' overhead and profit, to cover and compensate the Contractor for its overhead and profit;

- .5 Additional costs of supervision and field office personnel directly attributable to the change.
Intentionally Omitted.

§ 7.3.8 The amount of credit to be allowed by the Contractor to the Owner for a deletion or change that results in a net decrease in the Contract Sum shall be actual net cost as confirmed by the Architect. ~~Architect plus overhead and profit to actual net cost.~~ When both additions and credits covering related Work or substitutions are involved in a change, the allowance for overhead and profit shall be figured on the basis of net increase, if any, with respect to that change.

§ 7.3.9 Pending final determination of the total cost of a Construction Change Directive to the Owner, the Contractor may not request payment for Work completed under the Construction Change Directive in Applications for Payment. The Architect will make an interim determination for purposes of monthly certification for payment for those costs and certify for payment the amount that the Architect determines, in the Architect's professional judgment, to be reasonably justified. The Architect's interim determination of cost shall adjust the Contract Sum on the same basis as a Change Order, subject to the right of either party to disagree and assert a Claim in accordance with Article 15. Contractor may only include the amounts of fully executed Change Orders in the Applications for Payment.

§ 7.3.10 When the Owner and Contractor agree with a determination made by the Architect concerning the adjustments in the Contract Sum and Contract Time, or otherwise reach agreement upon the adjustments, such agreement shall be effective immediately and the Architect will prepare a Change Order. Change Orders may be issued for all or any part of a Construction Change Directive.

§ 7.4 MINOR CHANGES IN THE WORK

The Architect has authority to order minor changes in the Work not involving adjustment in the Contract Sum or extension of the Contract Time and not inconsistent with the intent of the Contract Documents. Such changes will be effected by written order signed by the Architect and shall be binding on the Owner and Contractor.

ARTICLE 8 TIME

§ 8.1 DEFINITIONS

§ 8.1.1 Unless otherwise provided, Contract Time is the period of time, including authorized adjustments, allotted in the Contract Documents for Substantial Completion of the Work.

§ 8.1.2 The date of commencement of the Work is the date established in the Agreement.

§ 8.1.3 The date of Substantial Completion is the date certified by the Architect in accordance with Section 9.8.

§ 8.1.4 The term "day" as used in the Contract Documents shall mean calendar day unless otherwise specifically defined.

§ 8.2 PROGRESS AND COMPLETION

§ 8.2.1 Time limits stated in the Contract Documents are of the essence of the Contract. By executing the Agreement the Contractor confirms that the Contract Time is a reasonable period for performing the Work.

§ 8.2.2 The Contractor shall not knowingly, except by agreement or instruction of the Owner in writing, prematurely commence operations on the site or elsewhere prior to the effective date of insurance required by Article 11 to be furnished by the Contractor and Owner. The date of commencement of the Work shall not be changed by the effective date of such insurance.

§ 8.2.3 The Contractor shall proceed expeditiously with adequate forces and shall achieve Substantial Completion within the Contract Time.

§ 8.3 DELAYS AND EXTENSIONS OF TIME

§ 8.3.1 If the Contractor is delayed at any time in the commencement or progress of the Work by an act or neglect of the Owner or Architect, or of an employee of either, or of a separate contractor employed by the Owner; or by changes ordered in the Work; or by labor disputes, fire, unusual delay in deliveries, unavoidable casualties or other causes beyond the Contractor's control; or by delay authorized by the ~~Owner pending mediation and arbitration;~~ Owner; or by other causes that the Architect determines may justify delay, then the Contract Time shall be extended by Change Order for such reasonable time as the Architect may determine.

§ 8.3.2 Claims relating to time shall be made in accordance with applicable provisions of Article 15.

§ 8.3.3 This Section 8.3 does not preclude recovery of damages for delay by either party under other provisions of the Contract Documents.

ARTICLE 9 PAYMENTS AND COMPLETION

§ 9.1 CONTRACT SUM

The Contract Sum is stated in the Agreement and, including authorized adjustments, is the total amount payable by the Owner to the Contractor for performance of the Work under the Contract Documents.

§ 9.2 SCHEDULE OF VALUES

Where the Contract is based on a stipulated sum or Guaranteed Maximum Price, the Contractor shall submit to the Architect, before the first Application for Payment, a schedule of values allocating the entire Contract Sum to the various portions of the Work and prepared in such form and supported by such data to substantiate its accuracy as the Architect may require. This schedule, unless objected to by the Architect, shall be used as a basis for reviewing the Contractor's Applications for Payment.

§ 9.3 APPLICATIONS FOR PAYMENT

Based upon Applications for Payment submitted to the Engineer by the Contractor and certificates for payment issued by the Engineer, the City shall make monthly progress payments on account of the Contract Sum to the Contractor as provided in these General Conditions of the Contract for Construction as follows:

The City will endeavor to pay the Contractor, on or about the thirtieth (30th) calendar day after receipt of Request for Payment, ninety-five (95%) percent of the portion of the Contract Sum properly allocated to labor, materials and equipment incorporated in the work and ninety-five (95%) percent of the portion of the Contract Sum properly allocated to materials and equipment suitably stored at the site or at some other location agreed upon in writing by the parties, less the aggregate of previous payments in each case; provided however, the City, at any time after fifty (50%) percent of the work has been completed, if it finds that satisfactory progress is being made, may in its sole discretion make any of the remaining partial payments in full. Also, upon Substantial Completion of the work, the City may increase total payment to one hundred (100%) percent of the Contract sum, less such retainage as the Engineer shall determine for incomplete work and unsettled claims. But such full payment or payments shall in no manner be construed as reducing the amount of the bond or the liability of the Surety thereon, until Final Completion and acceptance of all lines of work herein set forth. Final Payment shall be made upon completion of all work and acceptance by the Engineer in accordance with the General Conditions.

The action of the Engineer by which the Contractor is to be bound according to the terms of this Contract shall be evidenced by his final estimate and certificate, all prior estimates upon which ninety-five (95%) percent or more may be made, being merely payments on account, and not payments for accepted work, and subject to the corrections of such final estimate, which may be made without notice to the Contractor thereof, or of the measurements upon which the same is based.

§ 9.3.1 At least ten days before the date established for each progress payment, the Contractor shall submit to the Architect an itemized Application for Payment prepared in accordance with the schedule of values, if required under Section 9.2, for completed portions of the Work. Such application shall be ~~notarized, if required, certified by an officer of the firm~~ and supported by such data substantiating the Contractor's right to payment as the Owner or Architect may require, such as copies of requisitions from Subcontractors and material suppliers, and shall reflect retainage if provided for in the Contract Documents.

§ 9.3.1.1 As provided in Section 7.3.9, such applications may not include requests for payment on account of changes in the Work that have been properly authorized by Construction Change Directives, ~~or by interim determinations of the Architect, but not yet included in Change Orders.~~

§ 9.3.1.2 Applications for Payment shall not include requests for payment for portions of the Work for which the Contractor does not intend to pay a Subcontractor or material supplier, unless such Work has been performed by others whom the Contractor intends to pay.

§ 9.3.2 Unless otherwise provided in the Contract Documents, payments shall be made on account of materials and equipment delivered and suitably stored at the site for subsequent incorporation in the Work. If approved in advance by the Owner, payment may similarly be made for materials and equipment suitably stored off the site at a location agreed upon in writing. Payment for materials and equipment stored on or off the site shall be conditioned upon compliance by the Contractor with procedures satisfactory to the Owner to establish the Owner's title to such

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materials and equipment or otherwise protect the Owner's interest, and shall include the costs of applicable insurance, storage and transportation to the site for such materials and equipment stored off the site.

§ 9.3.3 The Contractor warrants that title to all Work covered by an Application for Payment will pass to the Owner no later than the time of payment. The Contractor further warrants that upon submittal of an Application for Payment all Work for which Certificates for Payment have been previously issued and payments received from the Owner shall, to the best of the Contractor's knowledge, information and belief, be free and clear of liens, claims, security interests or encumbrances in favor of the Contractor, Subcontractors, material suppliers, or other persons or entities making a claim by reason of having provided labor, materials and equipment relating to the Work.

§ 9.4 CERTIFICATES FOR PAYMENT

§ 9.4.1 The Architect will, within seven days after receipt of the Contractor's Application for Payment, either issue to the Owner a Certificate for Payment, with a copy to the Contractor, for such amount as the Architect determines is properly due, or notify the Contractor and Owner in writing of the Architect's reasons for withholding certification in whole or in part as provided in Section 9.5.1.

§ 9.4.2 The issuance of a Certificate for Payment will constitute a representation by the Architect to the Owner, based on the Architect's evaluation of the Work and the data comprising the Application for Payment, that, to the best of the Architect's knowledge, information and belief, the Work has progressed to the point indicated and that the quality of the Work is in accordance with the Contract Documents. The foregoing representations are subject to an evaluation of the Work for conformance with the Contract Documents upon Substantial Completion, to results of subsequent tests and inspections, to correction of minor deviations from the Contract Documents prior to completion and to specific qualifications expressed by the Architect. The issuance of a Certificate for Payment will further constitute a representation that the Contractor is entitled to payment in the amount certified. However, the issuance of a Certificate for Payment will not be a representation that the Architect has (1) made exhaustive or continuous on-site inspections to check the quality or quantity of the Work, (2) reviewed construction means, methods, techniques, sequences or procedures, (3) reviewed copies of requisitions received from Subcontractors and material suppliers and other data requested by the Owner to substantiate the Contractor's right to payment, or (4) made examination to ascertain how or for what purpose the Contractor has used money previously paid on account of the Contract Sum.

§ 9.5 DECISIONS TO WITHHOLD CERTIFICATION

§ 9.5.1 The Architect may withhold a Certificate for Payment in whole or in part, to the extent reasonably necessary to protect the Owner, if in the Architect's opinion the representations to the Owner required by Section 9.4.2 cannot be made. If the Architect is unable to certify payment in the amount of the Application, the Architect will notify the Contractor and Owner as provided in Section 9.4.1. If the Contractor and Architect cannot agree on a revised amount, the Architect will promptly issue a Certificate for Payment for the amount for which the Architect is able to make such representations to the Owner. The Architect may also withhold a Certificate for Payment or, because of subsequently discovered evidence, may nullify the whole or a part of a Certificate for Payment previously issued, to such extent as may be necessary in the Architect's opinion to protect the Owner from loss for which the Contractor is responsible, including loss resulting from acts and omissions described in Section 3.3.2, because of

- .1 defective Work not remedied;
- .2 third party claims filed or reasonable evidence indicating probable filing of such claims unless security acceptable to the Owner is provided by the Contractor;
- .3 failure of the Contractor to make payments properly to Subcontractors or for labor, materials or equipment;
- .4 reasonable evidence that the Work cannot be completed for the unpaid balance of the Contract Sum;
- .5 damage to the Owner or a separate contractor;
- .6 reasonable evidence that the Work will not be completed within the Contract Time, and that the unpaid balance would not be adequate to cover actual or liquidated damages for the anticipated delay; or
- .7 repeated failure to carry out the Work in accordance with the Contract Documents.
- .8 failure to comply with obligations under the Contract.

§ 9.5.2 When the above reasons for withholding certification are removed, certification will be made for amounts previously withheld. The City reserves the right to determine payment made.

§ 9.5.3 If the Architect withholds certification for payment under Section 9.5.1.3, the Owner may, at its sole option, issue joint checks to the Contractor and to any Subcontractor or material or equipment suppliers to whom the Contractor failed to make payment for Work properly performed or material or equipment suitably delivered. If the Owner makes payments by joint check, the Owner shall notify the Architect and the Architect will reflect such payment on the next Certificate for Payment.

§ 9.6 PROGRESS PAYMENTS

§ 9.6.1 After the Architect has issued a Certificate for Payment, the Owner shall make payment in the manner and within the time provided in the Contract Documents, and shall so notify the Architect.

§ 9.6.2 The Contractor shall pay each Subcontractor no later than seven days after receipt of payment from the Owner the amount to which the Subcontractor is entitled, reflecting percentages actually retained from payments to the Contractor on account of the Subcontractor's portion of the Work. The Contractor shall, by appropriate agreement with each Subcontractor, require each Subcontractor to make payments to Sub-subcontractors in a similar manner; is obligated to take one of the two following actions within seven (7) days after receipt of amounts paid to the Contractor by the Owner for work performed by any subcontractor under this Agreement:

a. Pay the subcontractor for the proportionate share of the total payment received from the Owner attributable to the work performed by the subcontractor under this Agreement; or

b. Notify the Owner and the subcontractor, in writing, of the Contractor's intention to withhold all or a part of the subcontractor's payment with the reason for nonpayment.

The Contractor is obligated to pay interest to the subcontractor on all amounts owed by the Contractor to the subcontractor that remain unpaid after seven (7) days following receipt by the Contractor of payment from the Owner for work performed by the subcontractor under this Agreement. Unless otherwise provided under the terms of this Agreement, interest shall accrue at the rate of one percent (1%) per month.

The Contractor shall include in each of its subcontracts, if any are permitted, a provision requiring each subcontractor to include or otherwise be subject to the same payment and interest requirements with respect to each lower-tier subcontractor.

The Contractor's obligation to pay an interest charge to a subcontractor pursuant to this section may not be construed to be an obligation of the City. A contract modification or Amendment to the Agreement may not be made for the purpose of providing reimbursement for such interest charge. A cost reimbursement claim may not include any amount for reimbursement for such interest charge.

§ 9.6.3 The Architect will, on request, furnish to a Subcontractor, if practicable, information regarding percentages of completion or amounts applied for by the Contractor and action taken thereon by the Architect and Owner on account of portions of the Work done by such Subcontractor. A Subcontractor inquiry for progress payment and other information shall be directed to the City Attorney's office under the Freedom of Information Act.

§ 9.6.4 The Owner has the right to request written evidence from the Contractor that the Contractor has properly paid Subcontractors and material and equipment suppliers amounts paid by the Owner to the Contractor for subcontracted Work. If the Contractor fails to furnish such evidence within seven days, the Owner shall have the right to contact Subcontractors to ascertain whether they have been properly paid. Neither the Owner nor Architect shall have an obligation to pay or to see to the payment of money to a Subcontractor, except as may otherwise be required by law.

§ 9.6.5 Contractor payments to material and equipment suppliers shall be treated in a manner similar to that provided in Sections 9.6.2, 9.6.3 and 9.6.4.

§ 9.6.6 A Certificate for Payment, a progress payment, or partial or entire use or occupancy of the Project by the Owner shall not constitute acceptance of Work not in accordance with the Contract Documents.

§ 9.6.7 Unless the Contractor provides the Owner with a payment bond in the full penal sum of the Contract Sum, payments received by the Contractor for Work properly performed by Subcontractors and suppliers shall be held by

the Contractor for those Subcontractors or suppliers who performed Work or furnished materials, or both, under contract with the Contractor for which payment was made by the Owner. Nothing contained herein shall require money to be placed in a separate account and not commingled with money of the Contractor, shall create any fiduciary liability or tort liability on the part of the Contractor for breach of trust or shall entitle any person or entity to an award of punitive damages against the Contractor for breach of the requirements of this provision.

§ 9.7 FAILURE OF PAYMENT

~~If the Architect does not issue a Certificate for Payment, through no fault of the Contractor, within seven days after receipt of the Contractor's Application for Payment, or if the Owner does not pay the Contractor within seven days after the date established in the Contract Documents the amount certified by the Architect or awarded by binding dispute resolution, then the Contractor may, upon seven additional days' written notice to the Owner and Architect, stop the Work until payment of the amount owing has been received. The Contract Time shall be extended appropriately and the Contract Sum shall be increased by the amount of the Contractor's reasonable costs of shut down, delay and start up, plus interest as provided for in the Contract Documents.~~ Intentionally Omitted.

§ 9.8 SUBSTANTIAL COMPLETION

§ 9.8.1 Substantial Completion is the stage in the progress of the Work when the Work or designated portion thereof is sufficiently complete in accordance with the Contract Documents so that the Owner can occupy or utilize the Work for its intended use.

§ 9.8.2 When the Contractor considers that the Work, or a portion thereof which the Owner agrees to accept separately, is substantially complete, the Contractor shall prepare and submit to the Architect a comprehensive list of items to be completed or corrected prior to final payment. Failure to include an item on such list does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents.

§ 9.8.3 Upon receipt of the Contractor's list, the Architect will make an inspection to determine whether the Work or designated portion thereof is substantially complete. If the Architect's inspection discloses any item, whether or not included on the Contractor's list, which is not sufficiently complete in accordance with the Contract Documents so that the Owner can occupy or utilize the Work or designated portion thereof for its intended use, the Contractor shall, before issuance of the Certificate of Substantial Completion, complete or correct such item upon notification by the Architect. In such case, the Contractor shall then submit a request for another inspection by the Architect to determine Substantial Completion.

§ 9.8.4 When the Work or designated portion thereof is substantially complete, the Architect will prepare a Certificate of Substantial Completion that shall establish the date of Substantial Completion, shall establish responsibilities of the Owner and Contractor for security, maintenance, heat, utilities, damage to the Work and insurance, and shall fix the time within which the Contractor shall finish all items on the list accompanying the Certificate. Warranties required by the Contract Documents shall commence on the date of Substantial Completion of the Work or designated portion thereof unless otherwise provided in the Certificate of Substantial Completion.

§ 9.8.5 The Certificate of Substantial Completion shall be submitted to the Owner and Contractor for their written acceptance of responsibilities assigned to them in such Certificate. Upon such acceptance and consent of surety, if any, the Owner shall make payment of retainage applying to such Work or designated portion thereof. Such payment shall be adjusted for Work that is incomplete or not in accordance with the requirements of the Contract Documents.

§ 9.9 PARTIAL OCCUPANCY OR USE

§ 9.9.1 The Owner may occupy or use any completed or partially completed portion of the Work at any stage when such portion is designated by separate agreement with the Contractor, provided such occupancy or use is consented to by the insurer as required under Section 11.3.1.5 and authorized by public authorities having jurisdiction over the Project. Such partial occupancy or use may commence whether or not the portion is substantially complete, provided the Owner and Contractor have accepted in writing the responsibilities assigned to each of them for payments, retainage, if any, security, maintenance, heat, utilities, damage to the Work and insurance, and have agreed in writing concerning the period for correction of the Work and commencement of warranties required by the Contract Documents. When the Contractor considers a portion substantially complete, the Contractor shall prepare and submit a list to the Architect as provided under Section 9.8.2. Consent of the Contractor to partial occupancy or use shall not be unreasonably withheld. The stage of the progress of the Work shall be determined by written agreement between the Owner and Contractor or, if no agreement is reached, by decision of the Architect.

§ 9.9.2 Immediately prior to such partial occupancy or use, the Owner, Contractor and Architect shall jointly inspect the area to be occupied or portion of the Work to be used in order to determine and record the condition of the Work.

§ 9.9.3 Unless otherwise agreed upon, partial occupancy or use of a portion or portions of the Work shall not constitute acceptance of Work not complying with the requirements of the Contract Documents.

§ 9.10 FINAL COMPLETION AND FINAL PAYMENT

§ 9.10.1 Upon receipt of the Contractor's written notice that the Work is ready for final inspection and acceptance and upon receipt of a final Application for Payment, the Architect will promptly make such inspection and, when the Architect finds the Work acceptable under the Contract Documents and the Contract fully performed, the Architect will promptly issue a final Certificate for Payment stating that to the best of the Architect's knowledge, information and belief, and on the basis of the Architect's on-site visits and inspections, the Work has been completed in accordance with terms and conditions of the Contract Documents and that the entire balance found to be due the Contractor and noted in the final Certificate is due and payable. The Architect's final Certificate for Payment will constitute a further representation that conditions listed in Section 9.10.2 as precedent to the Contractor's being entitled to final payment have been fulfilled.

§ 9.10.2 Neither final payment nor any remaining retained percentage shall become due until the Contractor submits to the Architect (1) an affidavit that payrolls, bills for materials and equipment, and other indebtedness connected with the Work for which the Owner or the Owner's property might be responsible or encumbered (less amounts withheld by Owner) have been paid or otherwise satisfied, (2) a certificate evidencing that insurance required by the Contract Documents to remain in force after final payment is currently in effect and will not be canceled or allowed to expire until at least 30 days' prior written notice has been given to the Owner, (3) a written statement that the Contractor knows of no substantial reason that the insurance will not be renewable to cover the period required by the Contract Documents, (4) consent of surety, if any, to final payment and (5), if required by the Owner, other data establishing payment or satisfaction of obligations, such as receipts, releases and waivers of liens, claims, security interests or encumbrances arising out of the Contract, to the extent and in such form as may be designated by the Owner. The Contractor shall submit a Contractor's release from liens, claims, security interests or encumbrances along with final invoice. If a Subcontractor refuses to furnish a release or waiver required by the Owner, the Contractor may furnish a bond satisfactory to the Owner to indemnify the Owner against such lien. If such lien remains unsatisfied after payments are made, the Contractor shall refund to the Owner all money that the Owner may be compelled to pay in discharging such lien, including all costs and reasonable attorneys' fees.

§ 9.10.3 If, after Substantial Completion of the Work, final completion thereof is materially delayed through no fault of the Contractor or by issuance of Change Orders affecting final completion, and the Architect so confirms, the Owner shall, upon application by the Contractor and certification by the Architect, and without terminating the Contract, make payment of the balance due for that portion of the Work fully completed and accepted. If the remaining balance for Work not fully completed or corrected is less than retainage stipulated in the Contract Documents, and if bonds have been furnished, the written consent of surety to payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by the Contractor to the Architect prior to certification of such payment. Such payment shall be made under terms and conditions governing final payment, except that it shall not constitute a waiver of claims.

§ 9.10.4 The making of final payment shall constitute a waiver of Claims by the Owner except those arising from

- .1 liens, Claims, security interests or encumbrances arising out of the Contract and unsettled;
- .2 failure of the Work to comply with the requirements of the Contract Documents; or
- .3 terms of special warranties required by the Contract Documents.

§ 9.10.5 Acceptance of final payment by the Contractor, a Subcontractor or material supplier shall constitute a waiver of claims by that payee except those previously made in writing and identified by that payee as unsettled at the time of final Application for Payment.

ARTICLE 10 PROTECTION OF PERSONS AND PROPERTY

§ 10.1 SAFETY PRECAUTIONS AND PROGRAMS

The Contractor shall be solely responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the performance of the Contract.

§ 10.2 SAFETY OF PERSONS AND PROPERTY

§ 10.2.1 The Contractor shall take reasonable precautions for safety of, and shall provide reasonable protection to prevent damage, injury or loss to

- .1 employees on the Work and other persons who may be affected thereby;
- .2 the Work and materials and equipment to be incorporated therein, whether in storage on or off the site, under care, custody or control of the Contractor or the Contractor's Subcontractors or Sub-subcontractors; and
- .3 other property at the site or adjacent thereto, such as trees, shrubs, lawns, walks, pavements, roadways, structures and utilities not designated for removal, relocation or replacement in the course of construction. The Contractor shall provide temporary fences, barricades, coverings, or other protection to preserve existing items indicated to remain and to prevent injury or damage to persons or property.

This includes providing protection of the Work, materials, appliances and fixtures against weather, rain, wind, storms, freezing or heat. At the end of the day's work, work likely to be damaged shall be properly protected. For work on existing buildings, the Contractor shall accomplish the work in such a manner that the remainder of the building, and its contents and inhabitants, are fully protected from any weather damage.

The Contractor shall be responsible for ensuring that adequate measures are taken to secure materials and equipment during the progress of the Work to prevent storm-related hazards. It is, therefore, essential that the Contractor take necessary precautions to ensure that openings in the building are monitored carefully. The Contractor shall take immediate actions required to seal off such openings when rain or other detrimental weather is imminent, and at the end of each workday, and ensure that the openings are completely sealed off to protect materials and equipment in the building from damage.

The provisions of this subparagraph take precedence over any similar provisions contained in the technical specifications.

§ 10.2.2 The Contractor shall comply with and give notices required by applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities bearing on safety of persons or property or their protection from damage, injury or loss.

§ 10.2.3 The Contractor shall erect and maintain, as required by existing conditions and performance of the Contract, reasonable safeguards for safety and protection, including posting danger signs and other warnings against hazards, promulgating safety regulations and notifying owners and users of adjacent sites and utilities.

§ 10.2.4 When use or storage of explosives or other hazardous materials or equipment or unusual methods are necessary for execution of the Work, the Contractor shall exercise utmost care and carry on such activities under supervision of properly qualified personnel.

§ 10.2.5 The Contractor shall promptly remedy damage and loss (other than damage or loss insured under property insurance required by the Contract Documents) to property referred to in Sections 10.2.1.2 and 10.2.1.3 caused in whole or in part by the Contractor, a Subcontractor, a Sub-subcontractor, or anyone directly or indirectly employed by any of them, or by anyone for whose acts they may be liable and for which the Contractor is responsible under Sections 10.2.1.2 and 10.2.1.3, except damage or loss attributable to acts or omissions of the Owner or Architect or anyone directly or indirectly employed by either of them, or by anyone for whose acts either of them may be liable, and not attributable to the fault or negligence of the Contractor. The foregoing obligations of the Contractor are in addition to the Contractor's obligations under Section 3.18.

§ 10.2.6 The Contractor shall designate a responsible member of the Contractor's organization at the site whose duty shall be the prevention of accidents. This person shall be the Contractor's superintendent unless otherwise designated by the Contractor in writing to the Owner and Architect.

§ 10.2.7 The Contractor shall not permit any part of the construction or site to be loaded so as to cause damage or create an unsafe condition.

§ 10.2.8 INJURY OR DAMAGE TO PERSON OR PROPERTY

If either party suffers injury or damage to person or property because of an act or omission of the other party, or of others for whose acts such party is legally responsible, written notice of such injury or damage, whether or not insured, shall be given to the other party within a reasonable time not exceeding 21 days after discovery. The notice shall provide sufficient detail to enable the other party to investigate the matter.

§ 10.3 HAZARDOUS MATERIALS

§ 10.3.1 The Contractor is responsible for compliance with any requirements included in the Contract Documents regarding hazardous materials. If the Contractor encounters a hazardous material or substance not addressed in the Contract Documents and if reasonable precautions will be inadequate to prevent foreseeable bodily injury or death to persons resulting from a material or substance, including but not limited to asbestos or polychlorinated biphenyl (PCB), encountered on the site by the Contractor, the Contractor shall, upon recognizing the condition, immediately stop Work in the affected area and report the condition to the Owner and Architect in writing.

§ 10.3.2 Upon receipt of the Contractor's written notice, the Owner shall obtain the services of a licensed laboratory to verify the presence or absence of the material or substance reported by the Contractor and, in the event such material or substance is found to be present, to cause it to be rendered harmless. Unless otherwise required by the Contract Documents, the Owner shall furnish in writing to the Contractor and Architect the names and qualifications of persons or entities who are to perform tests verifying the presence or absence of such material or substance or who are to perform the task of removal or safe containment of such material or substance. The Contractor and the Architect will promptly reply to the Owner in writing stating whether or not either has reasonable objection to the persons or entities proposed by the Owner. ~~If either the Contractor or Architect has an objection to a person or entity proposed by the Owner, the Owner shall propose another to whom the Contractor and the Architect have no reasonable objection.~~ Owner. When the material or substance has been rendered harmless, Work in the affected area shall resume upon written ~~agreement of the Owner~~ direction by the City and Contractor. By Change Order, the Contract Time shall be extended appropriately and the Contract Sum shall be increased in the amount of the Contractor's reasonable additional costs of shut-down, delay and start-up.

~~§ 10.3.3 To the fullest extent permitted by law, the Owner shall indemnify and hold harmless the Contractor, Subcontractors, Architect, Architect's consultants and agents and employees of any of them from and against claims, damages, losses and expenses, including but not limited to attorneys' fees, arising out of or resulting from performance of the Work in the affected area if in fact the material or substance presents the risk of bodily injury or death as described in Section 10.3.1 and has not been rendered harmless, provided that such claim, damage, loss or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself), except to the extent that such damage, loss or expense is due to the fault or negligence of the party seeking indemnity.~~

§ 10.3.3. Intentionally Omitted.

§ 10.3.4 The Owner shall not be responsible under this Section 10.3 for materials or substances the Contractor brings to the ~~site unless such materials or substances are required by the Contract Documents.~~ site. The Owner shall be responsible for materials or substances required by the Contract Documents, except to the extent of the Contractor's fault or negligence in the use and handling of such materials or substances.

§ 10.3.5 The Contractor shall indemnify the Owner for the cost and expense the Owner incurs (1) for remediation of a material or substance the Contractor brings to the site and negligently handles, or (2) where the Contractor fails to perform its obligations under Section 10.3.1, except to the extent that the cost and expense are due to the Owner's fault or negligence.

§ 10.3.6 If, without negligence on the part of the Contractor, the Contractor is held liable by a government agency for the cost of remediation of a hazardous material or substance solely by reason of performing Work as required by the Contract Documents, the Owner shall indemnify the Contractor for all cost and expense thereby incurred.

§ 10.4 EMERGENCIES

In an emergency affecting safety of persons or property, the Contractor shall act, at the Contractor's discretion, to prevent threatened damage, injury or loss. Additional compensation or extension of time claimed by the Contractor on account of an emergency shall be determined as provided in Article 15 and Article 7.

§ 10.4.1 EMERGENCY CONDITIONS. The issuance of a Declaration of Emergency conditions by any authorized government official may result in the suspension of the Work under the Contract and/or the ordering by the City of additional work. The Contractor shall make available to the City, during the time of the declared emergency, labor and equipment for such services under the terms and conditions of the Contract. Labor and equipment rates shall not exceed FEMA reimbursable rates for the Hampton Roads area. Failure to comply with such emergency directives may result in termination of the Contract by reason of non-compliance.

ARTICLE 11 INSURANCE AND BONDS

§ 11.1 CONTRACTOR'S LIABILITY INSURANCE

See Subparagraphs 3.18.1 and 10.3.1

§ 11.1.1 The Contractor shall purchase from and maintain in a company or companies lawfully authorized to do business in the jurisdiction in which the Project is located such insurance as will protect the Contractor from claims set forth below which may arise out of or result from the Contractor's operations and completed operations under the Contract and for which the Contractor may be legally liable, whether such operations be by the Contractor or by a Subcontractor or by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable:

- .1 Claims under workers' compensation, disability benefit and other similar employee benefit acts that are applicable to the Work to be performed;
- .2 Claims for damages because of bodily injury, occupational sickness or disease, or death of the Contractor's employees;
- .3 Claims for damages because of bodily injury, sickness or disease, or death of any person other than the Contractor's employees;
- .4 Claims for damages insured by usual personal injury liability coverage;
- .5 Claims for damages, other than to the Work itself, because of injury to or destruction of tangible property, including loss of use resulting therefrom;
- .6 Claims for damages because of bodily injury, death of a person or property damage arising out of ownership, maintenance or use of a motor vehicle;
- .7 Claims for bodily injury or property damage arising out of completed operations; and
- .8 Claims involving contractual liability insurance applicable to the Contractor's obligations under Section 3.18.

§ 11.1.2 The insurance required by Section 11.1.1 shall be written for not less than limits of liability. All liability policies shall be written in an occurrence form unless otherwise specifically approved by the City.

The Contractor shall secure and maintain in force insurance, including malicious mischief and vandalism, with minimum acceptable amounts described below, naming the City as additional insured during the life of the Contract:

.1	Worker's Compensation	Statutory
	Employer's Liability	\$200,000 per accident injury
.2	Commercial General Liability	Combined single limit \$3,000,000 or
		\$2,000,000 per occurrence
		\$3,000,000 aggregate
		\$3,000,000 products & completed
		Operations

The Commercial General Liability Insurance required above shall include the following extensions of coverage:

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- (1) The coverage shall be provided under a Comprehensive form of policy or similar thereto.
- (2) X.C.U. Coverage -- If the Contract requires any work procedures involving blasting, excavating, tunneling or other underground work, the liability coverage shall include Standard Blasting or Explosion Coverage, Standard Collapse Coverage and Standard Underground Coverage, commonly referred to as XCU liability coverage with limits of \$500,000 per occurrence and \$1,000,000 aggregate.
- (3) Broad Form Property Damage Endorsement.
- (4) Contractual Liability coverage shall be included.
- (5) Protective Liability coverage shall be included to protect the Contractor against claims arising out of operations performed by its Subcontractors.
- (6) Products Liability and/or Completed Operations coverage shall be included.

.3 Comprehensive Automobile Liability including owned, non-owned and hired vehicles:

Combined Single limit each accident	\$2,000,000
Bodily Injured	\$1,000,000 per person
	\$2,000,000 per occurrence
	\$2,000,000 aggregate
Property Damage	\$500,000 per occurrence

.4 Environmental Impairment Liability Insurance. If applicable, as determined by the City, the Contractor shall procure and maintain during the life of the Contract Environmental Impairment Liability Insurance, which shall protect against all claims and costs including, but not limited to, bodily injury or property damage claims (including clean-up costs) caused by pollution conditions, as herein defined, arising from the contracted work. Pollution conditions means the discharge, dispersal, release or escape of smoke vapor, soot, fumes, acids, alkalis, toxic chemicals, liquids, gases, waste materials or other irritants, contaminants, or pollutants into or upon land, the atmosphere or any watercourse or body of water, which results in bodily injury or property damage. The policy limits will be determined by the City and specified in the Contract Documents or required by law, whichever coverage is greater. Coverages, whether written on an occurrence or as prescribed by City, State or Federal law/regulations. Coverages, written on a claims-made basis, shall be maintained without interruption from the date of commencement of the Work until at least one year following the date of final payment and termination of any coverage required to be maintained after final payment, and, with respect to the Contractor's completed operations coverage, until the expiration of the period for correction of Work or for such other period for maintenance of completed operations coverage as specified in the Contract Documents.

§ 11.1.3 All insurance policies required hereunder shall contain an express provision therein, or endorsement attached thereto, worded substantially as follows:

"This is not to be cancelled or become subject to reduction of coverage prior to thirty days after the insured has received written notice mailed to the address noted hereinbefore, as evidenced by return receipt of registered letter."

All insurance certificates and/or policies shall designate the City of Norfolk, its employees, and its agents as "additional insured" regarding the contracted Work.

Certificates of Insurance issued by companies licensed within the Commonwealth of Virginia shall provide the designed insurance.

Contractor shall notify the City in writing within 10 days after receiving notice of any cancellation or reduction in coverage.

Certificates of insurance acceptable to the Owner shall be filed with the Owner prior to commencement of the Work and thereafter upon renewal or replacement of each required policy of insurance. These certificates and the insurance policies required by this Section 11.1 shall contain a provision that coverages afforded under the policies

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will not be canceled or allowed to expire until at least 30 days' prior written notice has been given to the Owner. An additional certificate evidencing continuation of liability coverage, including coverage for completed operations, shall be submitted with the final Application for Payment as required by Section 9.10.2 and thereafter upon renewal or replacement of such coverage until the expiration of the time required by Section 11.1.2. Information concerning reduction of coverage on account of revised limits or claims paid under the General Aggregate, or both, shall be furnished by the Contractor with reasonable promptness.

~~§ 11.1.4 The Contractor shall cause the commercial liability coverage required by the Contract Documents to include (1) the Owner, the Architect and the Architect's consultants as additional insureds for claims caused in whole or in part by the Contractor's negligent acts or omissions during the Contractor's operations; and (2) the Owner as an additional insured for claims caused in whole or in part by the Contractor's negligent acts or omissions during the Contractor's completed operations.~~**SUBCONTRACTOR'S INSURANCE.** The Contractor shall require all subcontractors to secure and maintain in force containing the same coverage and amounts as described in Subparagraph 11.1.2.

§ 11.2 OWNER'S LIABILITY INSURANCE

The Owner shall be responsible for purchasing and maintaining the Owner's usual liability insurance.
Intentionally Omitted.

§ 11.3 PROPERTY INSURANCE

~~§ 11.3.1 Unless otherwise provided, the Owner shall purchase and maintain, in a company or companies lawfully authorized to do business in the jurisdiction in which the Project is located, property insurance written on a builder's risk "all risk" or equivalent policy form in the amount of the initial Contract Sum, plus value of subsequent Contract Modifications and cost of materials supplied or installed by others, comprising total value for the entire Project at the site on a replacement cost basis without optional deductibles. Such property insurance shall be maintained, unless otherwise provided in the Contract Documents or otherwise agreed in writing by all persons and entities who are beneficiaries of such insurance, until final payment has been made as provided in Section 9.10 or until no person or entity other than the Owner has an insurable interest in the property required by this Section 11.3 to be covered, whichever is later. This insurance shall include interests of the Owner, the Contractor, Subcontractors and Sub-subcontractors in the Project. Until the work is completed and accepted by the City, the Contractor shall purchase and maintain a Builder's Risk or property insurance as is appropriate upon the entire work at the Site to the full insurable value thereof.~~

~~§ 11.3.1.1 Property insurance shall be on an "all risk" or equivalent policy form and shall include, without limitation, insurance against the perils of fire (with extended coverage) and physical loss or damage including, without duplication of coverage, theft, vandalism, malicious mischief, collapse, earthquake, flood, windstorm, falsework, testing and startup, temporary buildings and debris removal including demolition occasioned by enforcement of any applicable legal requirements, and shall cover reasonable compensation for Architect's and Contractor's services and expenses required as a result of such insured loss.~~

~~§ 11.3.1.2 If the Owner does not intend to purchase such property insurance required by the Contract and with all of the coverages in the amount described above, the Owner shall so inform the Contractor in writing prior to commencement of the Work. The Contractor may then effect insurance that will protect the interests of the Contractor, Subcontractors and Sub-subcontractors in the Work, and by appropriate Change Order the cost thereof shall be charged to the Owner. If the Contractor is damaged by the failure or neglect of the Owner to purchase or maintain insurance as described above, without so notifying the Contractor in writing, then the Owner shall bear all reasonable costs properly attributable thereto.~~

~~§ 11.3.1.3 If the property insurance requires deductibles, the Owner shall pay costs not covered because of such deductibles.~~

~~§ 11.3.1.4 This property insurance shall cover portions of the Work stored off the site, and also portions of the Work in transit.~~

~~§ 11.3.1.5 Partial occupancy or use in accordance with Section 9.9 shall not commence until the insurance company or companies providing property insurance have consented to such partial occupancy or use by endorsement or otherwise. The Owner and the Contractor shall take reasonable steps to obtain consent of the insurance company or~~

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companies and shall, without mutual written consent, take no action with respect to partial occupancy or use that would cause cancellation, lapse or reduction of insurance.

§ 11.3.1.1. Intentionally Omitted.

§ 11.3.1.2. Intentionally Omitted.

§ 11.3.1.3. Intentionally Omitted.

§ 11.3.1.4. Intentionally Omitted.

§ 11.3.1.5. Intentionally Omitted.

§ 11.3.2 BOILER AND MACHINERY INSURANCE

~~The Owner shall purchase and maintain boiler and machinery insurance required by the Contract Documents or by law, which shall specifically cover such insured objects during installation and until final acceptance by the Owner; this insurance shall include interests of the Owner, Contractor, Subcontractors and Sub-subcontractors in the Work; and the Owner and Contractor shall be named insureds.~~ Intentionally Omitted.

§ 11.3.3 LOSS OF USE INSURANCE

The Owner, at the Owner's option, may purchase and maintain such insurance as will insure the Owner against loss of use of the Owner's property due to fire or other hazards, however caused. The Owner waives all rights of action against the Contractor for loss of use of the Owner's property, including consequential losses due to fire or other hazards however caused.

§ 11.3.4 If the Contractor requests in writing that insurance for risks other than those described herein or other special causes of loss be included in the property insurance policy, the Owner shall, if possible, include such insurance, and the cost thereof shall be charged to the Contractor by appropriate Change Order.

§ 11.3.5 If during the Project construction period the Owner insures properties, real or personal or both, at or adjacent to the site by property insurance under policies separate from those insuring the Project, or if after final payment property insurance is to be provided on the completed Project through a policy or policies other than those insuring the Project during the construction period, the Owner shall waive all rights in accordance with the terms of Section 11.3.7 for damages caused by fire or other causes of loss covered by this separate property insurance. All separate policies shall provide this waiver of subrogation by endorsement or otherwise.

§ 11.3.6 Before an exposure to loss may occur, the Owner shall file with the Contractor a copy of each policy that includes insurance coverages required by this Section 11.3. Each policy shall contain all generally applicable conditions, definitions, exclusions and endorsements related to this Project. Each policy shall contain a provision that the policy will not be canceled or allowed to expire, and that its limits will not be reduced, until at least 30 days' prior written notice has been given to the Contractor.

§ 11.3.7 WAIVERS OF SUBROGATION

The Owner and Contractor waive all rights against (1) each other and any of their subcontractors, sub-subcontractors, agents and employees, each of the other, and (2) the Architect, Architect's consultants, separate contractors described in Article 6, if any, and any of their subcontractors, sub-subcontractors, agents and employees, for damages caused by fire or other causes of loss to the extent covered by property insurance obtained pursuant to this Section 11.3 or other property insurance applicable to the Work, except such rights as they have to proceeds of such insurance held by the Owner as fiduciary. The Owner or Contractor, as appropriate, shall require of the Architect, Architect's consultants, separate contractors described in Article 6, if any, and the subcontractors, sub-subcontractors, agents and employees of any of them, by appropriate agreements, written where legally required for validity, similar waivers each in favor of other parties enumerated herein. The policies shall provide such waivers of subrogation by endorsement or otherwise. A waiver of subrogation shall be effective as to a person or entity even though that person or entity would otherwise have a duty of indemnification, contractual or otherwise, did not pay the insurance premium directly or indirectly, and whether or not the person or entity had an insurable interest in the property damaged.

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§ 11.3.8 A loss insured under the Owner's property insurance shall be adjusted by the Owner as fiduciary and made payable to the Owner as fiduciary for the insureds, as their interests may appear, subject to requirements of any applicable mortgagee clause and of Section 11.3.10. The Contractor shall pay Subcontractors their just shares of insurance proceeds received by the Contractor, and by appropriate agreements, written where legally required for validity, shall require Subcontractors to make payments to their Sub-subcontractors in similar manner.

§ 11.3.9 If required in writing by a party in interest, the Owner as fiduciary shall, upon occurrence of an insured loss, give bond for proper performance of the Owner's duties. The cost of required bonds shall be charged against proceeds received as fiduciary. The Owner shall deposit in a separate account proceeds so received, which the Owner shall distribute in accordance with such agreement as the parties in interest may reach, or as determined in accordance with the method of binding dispute resolution selected in the Agreement between the Owner and Contractor. If after such loss no other special agreement is made and unless the Owner terminates the Contract for convenience, replacement of damaged property shall be performed by the Contractor after notification of a Change in the Work in accordance with Article 7.

§ 11.3.10 The Owner as fiduciary shall have power to adjust and settle a loss with insurers unless one of the parties in interest shall object in writing within five days after occurrence of loss to the Owner's exercise of this power; if such objection is made, the dispute shall be resolved in the manner selected by the Owner and Contractor as the method of binding dispute resolution in the Agreement. If the Owner and Contractor have selected arbitration as the method of binding dispute resolution, the Owner as fiduciary shall make settlement with insurers or, in the case of a dispute over distribution of insurance proceeds, in accordance with the directions of the arbitrators.

§ 11.4 PERFORMANCE BOND AND PAYMENT BOND

§ 11.4.1 The Owner shall have the right to require the Contractor to furnish bonds covering faithful performance of the Contract and payment of obligations arising thereunder as stipulated in bidding requirements or specifically required in the Contract Documents on the date of execution of the Contract.

§ 11.4.2 Upon the request of any person or entity appearing to be a potential beneficiary of bonds covering payment of obligations arising under the Contract, the Contractor shall promptly furnish a copy of the bonds or shall authorize a copy to be furnished. A Performance Bond and Payment Bond Rider is required for all Change Orders that are in the amount of \$100,000 or greater; or, if the aggregate total of multiple Change Orders is equal to or greater than \$100,000.

ARTICLE 12 UNCOVERING AND CORRECTION OF WORK

§ 12.1 UNCOVERING OF WORK

§ 12.1.1 If a portion of the Work is covered contrary to the Architect's request or to requirements specifically expressed in the Contract Documents, it must, if requested in writing by the Architect, be uncovered for the Architect's examination and be replaced at the Contractor's expense without change in the Contract Time.

§ 12.1.2 If a portion of the Work has been covered that the Architect has not specifically requested to examine prior to its being covered, the Architect may request to see such Work and it shall be uncovered by the Contractor. If such Work is in accordance with the Contract Documents, costs of uncovering and replacement shall, by appropriate Change Order, be at the Owner's expense. If such Work is not in accordance with the Contract Documents, such costs and the cost of correction shall be at the Contractor's expense unless the condition was caused by the Owner or a separate contractor in which event the Owner shall be responsible for payment of such costs.

§ 12.2 CORRECTION OF WORK

§ 12.2.1 BEFORE OR AFTER SUBSTANTIAL COMPLETION

The Contractor shall promptly correct Work rejected by the Architect or failing to conform to the requirements of the Contract Documents, whether discovered before or after Substantial Completion and whether or not fabricated, installed or completed. Costs of correcting such rejected Work, including additional testing and inspections, the cost of uncovering and replacement, and compensation for the Architect's services and expenses made necessary thereby, shall be at the Contractor's expense.

§ 12.2.2 AFTER SUBSTANTIAL COMPLETION

§ 12.2.2.1 In addition to the Contractor's obligations under Section 3.5, if, within one year after the date of Substantial Completion of the Work or designated portion thereof or after the date for commencement of warranties

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established under Section 9.9.1, or by terms of an applicable special warranty required by the Contract Documents, any of the Work is found to be not in accordance with the requirements of the Contract Documents, the Contractor shall correct it promptly after receipt of written notice from the Owner to do so unless the Owner has previously given the Contractor a written acceptance of such condition. The Owner shall give such notice promptly after discovery of the condition. During the one-year period for correction of Work, if the Owner fails to notify the Contractor and give the Contractor an opportunity to make the correction, the Owner waives the rights to require correction by the Contractor and to make a claim for breach of warranty. If the Contractor fails to correct nonconforming Work within a reasonable time during that period after receipt of notice from the Owner or Architect, the Owner may correct it in accordance with Section 2.4.

§ 12.2.2.2 The one-year period for correction of Work shall be extended with respect to portions of Work first performed after Substantial Completion by the period of time between Substantial Completion and the actual completion of that portion of the Work.

~~§ 12.2.2.3 The one-year period for correction of Work shall not be extended by corrective Work performed by the Contractor pursuant to this Section 12.2.~~

§ 12.2.2.3. Intentionally Omitted.

§ 12.2.3 The Contractor shall remove from the site portions of the Work that are not in accordance with the requirements of the Contract Documents and are neither corrected by the Contractor nor accepted by the Owner.

§ 12.2.4 The Contractor shall bear the cost of correcting destroyed or damaged construction, whether completed or partially completed, of the Owner or separate contractors caused by the Contractor's correction or removal of Work that is not in accordance with the requirements of the Contract Documents.

§ 12.2.5 Nothing contained in this Section 12.2 shall be construed to establish a period of limitation with respect to other obligations the Contractor has under the Contract Documents. Establishment of the one-year period for correction of Work as described in Section 12.2.2 relates only to the specific obligation of the Contractor to correct the Work, and has no relationship to the time within which the obligation to comply with the Contract Documents may be sought to be enforced, nor to the time within which proceedings may be commenced to establish the Contractor's liability with respect to the Contractor's obligations other than specifically to correct the Work.

§ 12.3 ACCEPTANCE OF NONCONFORMING WORK

If the Owner prefers to accept Work that is not in accordance with the requirements of the Contract Documents, the Owner may do so instead of requiring its removal and correction, in which case the Contract Sum will be reduced as appropriate and equitable. Such adjustment shall be effected whether or not final payment has been made.

ARTICLE 13 MISCELLANEOUS PROVISIONS

§ 13.1 GOVERNING LAW

The Contract shall be governed by the law of the place where the Project is located except that, if the parties have selected arbitration as the method of binding dispute resolution, the Federal Arbitration Act shall govern Section 15.4.

§ 13.2 SUCCESSORS AND ASSIGNS

§ 13.2.1 The Owner and Contractor respectively bind themselves, their partners, successors, assigns and legal representatives to covenants, agreements and obligations contained in the Contract Documents. Except as provided in Section 13.2.2, neither party to the Contract shall assign the Contract as a whole without written consent of the other. If either party attempts to make such an assignment without such consent, that party shall nevertheless remain legally responsible for all obligations under the Contract.

§ 13.2.2 The Owner may, without consent of the Contractor, assign the Contract to a lender providing construction financing for the Project, if the lender assumes the Owner's rights and obligations under the Contract Documents. The Contractor shall execute all consents reasonably required to facilitate such assignment.

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§ 13.3 WRITTEN NOTICE

Written notice shall be deemed to have been duly served if delivered in person to the individual, to a member of the firm or entity, or to an officer of the corporation for which it was intended; or if delivered at, or sent by registered or certified mail or by courier service providing proof of delivery to, the last business address known to the party giving notice.

§ 13.4 RIGHTS AND REMEDIES

§ 13.4.1 Duties and obligations imposed by the Contract Documents and rights and remedies available thereunder shall be in addition to and not a limitation of duties, obligations, rights and remedies otherwise imposed or available by law.

§ 13.4.2 No action or failure to act by the Owner, Architect or Contractor shall constitute a waiver of a right or duty afforded them under the Contract, nor shall such action or failure to act constitute approval of or acquiescence in a breach there under, except as may be specifically agreed in writing.

§ 13.5 TESTS AND INSPECTIONS

§ 13.5.1 Tests, inspections and approvals of portions of the Work shall be made as required by the Contract Documents and by applicable laws, statutes, ordinances, codes, rules and regulations or lawful orders of public authorities. Unless otherwise provided, the Contractor shall make arrangements for such tests, inspections and approvals with an independent testing laboratory or entity acceptable to the Owner, or with the appropriate public authority, and shall bear all related costs of tests, inspections and approvals. The Contractor shall give the Architect timely notice of when and where tests and inspections are to be made so that the Architect may be present for such procedures. The Owner shall bear costs of (1) tests, inspections or approvals that do not become requirements until after bids are received or negotiations concluded, and (2) tests, inspections or approvals where building codes or applicable laws or regulations prohibit the Owner from delegating their cost to the Contractor.

§ 13.5.2 If the Architect, Owner or public authorities having jurisdiction determine that portions of the Work require additional testing, inspection or approval not included under Section 13.5.1, the Architect will, upon written authorization from the Owner, instruct the Contractor to make arrangements for such additional testing, inspection or approval by an entity acceptable to the Owner, and the Contractor shall give timely notice to the Architect of when and where tests and inspections are to be made so that the Architect may be present for such procedures. Such costs, except as provided in Section 13.5.3, shall be at the Owner's expense.

§ 13.5.3 If such procedures for testing, inspection or approval under Sections 13.5.1 and 13.5.2 reveal failure of the portions of the Work to comply with requirements established by the Contract Documents, all costs made necessary by such failure including those of repeated procedures and compensation for the Architect's services and expenses shall be at the Contractor's expense.

§ 13.5.4 Required certificates of testing, inspection or approval shall, unless otherwise required by the Contract Documents, be secured by the Contractor and promptly delivered to the Architect.

§ 13.5.5 If the Architect is to observe tests, inspections or approvals required by the Contract Documents, the Architect will do so promptly and, where practicable, at the normal place of testing.

§ 13.5.6 Tests or inspections conducted pursuant to the Contract Documents shall be made promptly to avoid unreasonable delay in the Work.

§ 13.6 INTEREST

Payments due and unpaid under the Contract Documents shall bear interest from the date payment is due at such rate as the parties may agree upon in writing or, in the absence thereof, at the legal rate prevailing from time to time at the place where the Project is located. Intentionally Omitted.

§ 13.7 TIME LIMITS ON CLAIMS

The Owner and Contractor shall commence all claims and causes of action, whether in contract, tort, breach of warranty or otherwise, against the other arising out of or related to the Contract in accordance with the requirements of the final dispute resolution method selected in the Agreement within the time period specified by applicable law,

but in any case not more than 10 years after the date of Substantial Completion of the Work. The Owner and Contractor waive all claims and causes of action not commenced in accordance with this Section 13.7.

ARTICLE 14 TERMINATION OR SUSPENSION OF THE CONTRACT

§ 14.1 TERMINATION BY THE CONTRACTOR

~~§ 14.1.1 The Contractor may terminate the Contract if the Work is stopped for a period of 30 consecutive days through no act or fault of the Contractor or a Subcontractor, Sub-subcontractor or their agents or employees or any other persons or entities performing portions of the Work under direct or indirect contract with the Contractor, for any of the following reasons:~~

- ~~.1 Issuance of an order of a court or other public authority having jurisdiction that requires all Work to be stopped;~~
- ~~.2 An act of government, such as a declaration of national emergency that requires all Work to be stopped;~~
- ~~.3 Because the Architect has not issued a Certificate for Payment and has not notified the Contractor of the reason for withholding certification as provided in Section 9.4.1, or because the Owner has not made payment on a Certificate for Payment within the time stated in the Contract Documents; or~~
- ~~.4 The Owner has failed to furnish to the Contractor promptly, upon the Contractor's request, reasonable evidence as required by Section 2.2.1.~~

~~§ 14.1.2 The Contractor may terminate the Contract if, through no act or fault of the Contractor or a Subcontractor, Sub-subcontractor or their agents or employees or any other persons or entities performing portions of the Work under direct or indirect contract with the Contractor, repeated suspensions, delays or interruptions of the entire Work by the Owner as described in Section 14.3 constitute in the aggregate more than 100 percent of the total number of days scheduled for completion, or 120 days in any 365-day period, whichever is less.~~

~~§ 14.1.3 If one of the reasons described in Section 14.1.1 or 14.1.2 exists, the Contractor may, upon seven days' written notice to the Owner and Architect, terminate the Contract and recover from the Owner payment for Work executed, including reasonable overhead and profit, costs incurred by reason of such termination, and damages.~~

~~§ 14.1.4 If the Work is stopped for a period of 60 consecutive days through no act or fault of the Contractor or a Subcontractor or their agents or employees or any other persons performing portions of the Work under contract with the Contractor because the Owner has repeatedly failed to fulfill the Owner's obligations under the Contract Documents with respect to matters important to the progress of the Work, the Contractor may, upon seven additional days' written notice to the Owner and the Architect, terminate the Contract and recover from the Owner as provided in Section 14.1.3.~~

§ 14.1.1: Intentionally Omitted

- .1 ;
- .2 ;
- .3 ;
- .4 .

§ 14.1.2. Intentionally Omitted.

§ 14.1.3. Intentionally Omitted

§ 14.1.4. Intentionally Omitted

§ 14.2 TERMINATION BY THE OWNER FOR CAUSE

§ 14.2.1 The Owner may terminate the Contract if the Contractor

- .1 repeatedly refuses or fails to supply enough properly skilled workers or proper materials;
- .2 fails to make payment to Subcontractors for materials or labor in accordance with the respective agreements between the Contractor and the Subcontractors;
- .3 repeatedly disregards applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of a public authority; or
- .4 otherwise is guilty of substantial breach of a provision of the Contract Documents.

§ 14.2.2 When any of the above reasons exist, the Owner, ~~upon certification by the Initial Decision Maker that sufficient cause exists to justify such action,~~ may without prejudice to any other rights or remedies of the Owner and after giving the Contractor and the Contractor's surety, if any, seven days' written notice, terminate employment of the Contractor and may, subject to any prior rights of the surety:

- .1 Exclude the Contractor from the site and take possession of all materials, equipment, tools, and construction equipment and machinery thereon owned by the Contractor;
- .2 Accept assignment of subcontracts pursuant to Section 5.4; and
- .3 Finish the Work by whatever reasonable method the Owner may deem expedient. Upon written request of the Contractor, the Owner shall furnish to the Contractor a detailed accounting of the costs incurred by the Owner in finishing the Work.

§ 14.2.3 When the Owner terminates the Contract for one of the reasons stated in Section 14.2.1, the Contractor shall not be entitled to receive further payment until the Work is finished.

§ 14.2.4 If the unpaid balance of the Contract Sum exceeds costs of finishing the Work, including compensation for the Architect's services and expenses made necessary thereby, and other damages incurred by the Owner and not expressly waived, such excess shall be paid to the Contractor. If such costs and damages exceed the unpaid balance, the Contractor shall pay the difference to the Owner. The amount to be paid to the Contractor or Owner, as the case may be, shall be certified by the Initial Decision Maker, upon application, and this obligation for payment shall survive termination of the Contract.

§ 14.3 SUSPENSION BY THE OWNER FOR CONVENIENCE

§ 14.3.1 The Owner may, without cause, order the Contractor in writing to suspend, delay or interrupt the Work in whole or in part for such period of time as the Owner may determine.

§ 14.3.2 The Contract Sum and Contract Time shall be adjusted for increases in the cost and time caused by suspension, delay or interruption as described in Section 14.3.1. Adjustment of the Contract Sum shall include profit. No adjustment shall be made to the extent

- .1 that performance is, was or would have been so suspended, delayed or interrupted by another cause for which the Contractor is responsible; or
- .2 that an equitable adjustment is made or denied under another provision of the Contract.

§ 14.4 TERMINATION BY THE OWNER FOR CONVENIENCE

§ 14.4.1 The Owner may, at any time, terminate the Contract for the Owner's convenience and without cause.

§ 14.4.2 Upon receipt of written notice from the Owner of such termination for the Owner's convenience, the Contractor shall

- .1 cease operations as directed by the Owner in the notice;
- .2 take actions necessary, or that the Owner may direct, for the protection and preservation of the Work; and
- .3 except for Work directed to be performed prior to the effective date of termination stated in the notice, terminate all existing subcontracts and purchase orders and enter into no further subcontracts and purchase orders.

§ 14.4.3 In case of such termination for the Owner's convenience, the Contractor shall be entitled to receive payment for Work executed, and costs incurred by reason of such termination, along with reasonable overhead and profit on the Work not ~~executed~~. executed and costs incurred from this termination.

ARTICLE 15 CLAIMS AND DISPUTES

§ 15.1 CLAIMS

§ 15.1.1 DEFINITION

A Claim is a demand or assertion by one of the parties seeking, as a matter of right, payment of money, or other relief with respect to the terms of the Contract. The term "Claim" also includes other disputes and matters in question between the Owner and Contractor arising out of or relating to the Contract. The responsibility to substantiate Claims shall rest with the party making the Claim.

§ 15.1.2 NOTICE OF CLAIMS

Claims by either the Owner or Contractor must be initiated by written notice to the other party and to the Initial Decision Maker with a copy sent to the Architect, if the Architect is not serving as the Initial Decision Maker. Claims by either party must be initiated within 21 days after occurrence of the event giving rise to such Claim or within 21 days after the claimant first recognizes the condition giving rise to the Claim, whichever is later.

§ 15.1.3 CONTINUING CONTRACT PERFORMANCE

Pending final resolution of a Claim, except as otherwise agreed in writing or as provided in Section 9.7 and Article 14, the Contractor shall proceed diligently with performance of the Contract and the Owner shall continue to make payments in accordance with the Contract Documents. The Architect will prepare Change Orders and issue Certificates for Payment in accordance with the decisions of the Initial Decision Maker.

§ 15.1.4 CLAIMS FOR ADDITIONAL COST

If the Contractor wishes to make a Claim for an increase in the Contract Sum, written notice as provided herein shall be given before proceeding to execute the Work. Prior notice is not required for Claims relating to an emergency endangering life or property arising under Section 10.4.

§ 15.1.5 CLAIMS FOR ADDITIONAL TIME

§ 15.1.5.1 If the Contractor wishes to make a Claim for an increase in the Contract Time, written notice as provided herein shall be given. The Contractor's Claim shall include an estimate of cost and of probable effect of delay on progress of the Work. In the case of a continuing delay, only one Claim is necessary.

§ 15.1.5.2 If adverse weather conditions are the basis for a Claim for additional time, such Claim shall be documented by data substantiating that weather conditions were abnormal for the period of time, could not have been reasonably anticipated and had an adverse effect on the scheduled construction.

§ 15.1.6 CLAIMS FOR CONSEQUENTIAL DAMAGES

The Contractor and Owner waive Claims against each other for consequential damages arising out of or relating to this Contract. This mutual waiver includes

- .1 damages incurred by the Owner for rental expenses, for losses of use, income, profit, financing, business and reputation, and for loss of management or employee productivity or of the services of such persons; and
- .2 damages incurred by the Contractor for principal office expenses including the compensation of personnel stationed there, for losses of financing, business and reputation, and for loss of profit except anticipated profit arising directly from the Work.

This mutual waiver is applicable, without limitation, to all consequential damages due to either party's termination in accordance with Article 14. Nothing contained in this Section 15.1.6 shall be deemed to preclude an award of liquidated damages, when applicable, in accordance with the requirements of the Contract Documents.

§ 15.2 INITIAL DECISION

§ 15.2.1 Decision of Owner. Claims, excluding those arising under Sections 10.3, 10.4, 11.3.9, and 11.3.10, shall be referred to the Initial Decision Maker for initial decision, ~~evaluation and recommendation.~~ The Architect will serve as the Initial Decision Maker, unless otherwise indicated in the Agreement. Except for those Claims excluded by this Section 15.2.1, ~~an initial decision a final decision by the Owner~~ shall be required as a condition precedent to ~~mediation of any Claim litigation of all Claims between the Contractor and Owner~~ arising prior to the date final payment is due, unless 30 days have passed after the Claim has been referred to the ~~Initial Decision Maker Architect~~ with no decision having been ~~rendered rendered by the Owner.~~ Unless the Initial Decision Maker and all affected parties agree, the Initial Decision Maker will not ~~decide evaluate~~ disputes between the Contractor and persons or entities other than the Owner.

§ 15.2.2 The ~~Initial Decision Maker Architect~~ will review Claims and within ten days of the receipt of ~~a the~~ Claim take one or more of the following actions: (1) request additional supporting data from the claimant or a response with supporting data from the other party, (2) ~~reject recommend rejection of the Claim in whole or in part,~~ (3) ~~approve recommend approval of the Claim,~~ (4) ~~suggest recommend a compromise,~~ or (5) advise the parties that the Initial Decision Maker is unable to resolve the Claim if the Initial Decision Maker lacks sufficient information to

evaluate the merits of the Claim or if the Initial Decision Maker concludes that, in the Initial Decision Maker's sole discretion, it would be inappropriate for the Initial Decision Maker to resolve the Claim.

§ 15.2.3 In evaluating Claims, the Initial Decision Maker may, but shall not be obligated to, consult with or seek information from either party or from persons with special knowledge or expertise who may assist the Initial Decision Maker in rendering a decision. The Initial Decision Maker may request the Owner to authorize retention of such persons at the Owner's expense.

§ 15.2.4 If the Initial Decision Maker requests a party to provide a response to a Claim or to furnish additional supporting data, such party shall respond, within ten days after receipt of such request, and shall either (1) provide a response on the requested supporting data, (2) advise the Initial Decision Maker when the response or supporting data will be furnished or (3) advise the Initial Decision Maker that no supporting data will be furnished. Upon receipt of the response or supporting data, if any, the Initial Decision Maker will either reject or approve/recommend either rejection or approval of the Claim in whole or in part.

§ 15.2.5 The Initial Decision Maker will ~~render an initial decision/recommend~~ approving or rejecting the Claim, or indicating that the Initial Decision Maker is unable to resolve the Claim. This initial decision shall (1) be in writing; (2) state the reasons therefor; and (3) notify the parties and the Architect, if the Architect is not serving as the Initial Decision Maker, of any change in the Contract Sum or Contract Time or both. The initial Owner's decision shall be final and binding on the parties but subject to mediation and, if the parties fail to resolve their dispute through mediation, to binding dispute resolution subject to mediation or arbitration.

~~§ 15.2.6 Either party may file for mediation of an initial decision at any time, subject to the terms of Section 15.2.6.1.~~

~~§ 15.2.6.1 Either party may, within 30 days from the date of an initial decision, demand in writing that the other party file for mediation within 60 days of the initial decision. If such a demand is made and the party receiving the demand fails to file for mediation within the time required, then both parties waive their rights to mediate or pursue binding dispute resolution proceedings with respect to the initial decision.~~

§ 15.2.6. Intentionally Omitted

§ 15.2.6.1.. Intentionally Omitted.

§ 15.2.7 In the event of a Claim against the Contractor, the Owner may, but is not obligated to, notify the surety, if any, of the nature and amount of the Claim. If the Claim relates to a possibility of a Contractor's default, the Owner may, but is not obligated to, notify the surety and request the surety's assistance in resolving the controversy.

§ 15.2.8 If a Claim relates to or is the subject of a mechanic's lien, the party asserting such Claim may proceed in accordance with applicable law to comply with the lien notice or filing deadlines.

§ 15.3 MEDIATION

~~§ 15.3.1 Claims, disputes, or other matters in controversy arising out of or related to the Contract except those waived as provided for in Sections 9.10.4, 9.10.5, and 15.1.6 shall be subject to mediation as a condition precedent to binding dispute resolution.~~

~~§ 15.3.2 The parties shall endeavor to resolve their Claims by mediation which, unless the parties mutually agree otherwise, shall be administered by the American Arbitration Association in accordance with its Construction Industry Mediation Procedures in effect on the date of the Agreement. A request for mediation shall be made in writing, delivered to the other party to the Contract, and filed with the person or entity administering the mediation. The request may be made concurrently with the filing of binding dispute resolution proceedings but, in such event, mediation shall proceed in advance of binding dispute resolution proceedings, which shall be stayed pending mediation for a period of 60 days from the date of filing, unless stayed for a longer period by agreement of the parties or court order. If an arbitration is stayed pursuant to this Section 15.3.2, the parties may nonetheless proceed to the selection of the arbitrator(s) and agree upon a schedule for later proceedings.~~

~~§ 15.3.3 The parties shall share the mediator's fee and any filing fees equally. The mediation shall be held in the place where the Project is located, unless another location is mutually agreed upon. Agreements reached in mediation shall be enforceable as settlement agreements in any court having jurisdiction thereof.~~

~~§ 15.3.1. Intentionally Omitted.~~

~~§ 15.3.2... Intentionally Omitted.~~

~~§ 15.3.3... Intentionally Omitted.~~

~~§ 15.4 ARBITRATION~~

~~§ 15.4.1 If the parties have selected arbitration as the method for binding dispute resolution in the Agreement, any Claim subject to, but not resolved by, mediation shall be subject to arbitration which, unless the parties mutually agree otherwise, shall be administered by the American Arbitration Association in accordance with its Construction Industry Arbitration Rules in effect on the date of the Agreement. A demand for arbitration shall be made in writing, delivered to the other party to the Contract, and filed with the person or entity administering the arbitration. The party filing a notice of demand for arbitration must assert in the demand all Claims then known to that party on which arbitration is permitted to be demanded.~~

~~§ 15.4.1.1 A demand for arbitration shall be made no earlier than concurrently with the filing of a request for mediation, but in no event shall it be made after the date when the institution of legal or equitable proceedings based on the Claim would be barred by the applicable statute of limitations. For statute of limitations purposes, receipt of a written demand for arbitration by the person or entity administering the arbitration shall constitute the institution of legal or equitable proceedings based on the Claim.~~

~~§ 15.4.2 The award rendered by the arbitrator or arbitrators shall be final, and judgment may be entered upon it in accordance with applicable law in any court having jurisdiction thereof.~~

~~§ 15.4.3 The foregoing agreement to arbitrate and other agreements to arbitrate with an additional person or entity duly consented to by parties to the Agreement shall be specifically enforceable under applicable law in any court having jurisdiction thereof.~~

~~§ 15.4.1... Intentionally Omitted.~~

~~§ 15.4.1.1... Intentionally Omitted.~~

~~§ 15.4.2. Intentionally Omitted.~~

~~§ 15.4.3. Intentionally Omitted.~~

~~§ 15.4.4 CONSOLIDATION OR JOINDER~~

~~§ 15.4.4.1 Either party, at its sole discretion, may consolidate an arbitration conducted under this Agreement with any other arbitration to which it is a party provided that (1) the arbitration agreement governing the other arbitration permits consolidation, (2) the arbitrations to be consolidated substantially involve common questions of law or fact, and (3) the arbitrations employ materially similar procedural rules and methods for selecting arbitrator(s).~~

~~§ 15.4.4.2 Either party, at its sole discretion, may include by joinder persons or entities substantially involved in a common question of law or fact whose presence is required if complete relief is to be accorded in arbitration, provided that the party sought to be joined consents in writing to such joinder. Consent to arbitration involving an additional person or entity shall not constitute consent to arbitration of any claim, dispute or other matter in question not described in the written consent.~~

~~§ 15.4.4.1. Intentionally Omitted.~~

~~§ 15.4.4.2.. Intentionally Omitted.~~

~~§ 15.4.4.3. Intentionally Omitted.~~

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PART II

1. SCHEDULES AND REPORTS

Contractor shall submit for approval the following items in four (4) copies prior to commencing the Work:

a. A complete, detailed construction progress schedule in weekly increments, showing anticipated start and completion of all sections of the Work. Also, see sections 3.10 and 3.10.1

b. A complete list of Subcontractors

c. A breakdown of the Project contract price for use in processing monthly requisitions.

d. A projection of contract's monthly cash flow requirements for the duration of the Project.

e. The above requirements may be waived for small projects at the discretion of the Engineer.

2. MINORITY PARTICIPATION

The Contractor shall notify the City in writing of the names of any minority and disadvantaged business subcontractors to be used on the Project, including the estimated dollar amount of such subcontract and the minority classification of such subcontractors. A minority and disadvantaged business is one that is at least 51% owned by an Asian American, Black, Hispanic, and American Indian, Eskimo, Aleut, or Female.

3. EROSION & SEDIMENT CONTROL

On construction projects that are required by the City's Erosion & Sediment Control ordinance (City Code Chapter 15) to have an approved erosion and sediment control plan, the Contractor shall be required to implement the approved plan and comply with all conditions of the plan. A copy of the approved plan and the Virginia Erosion and Sediment Control Handbook. (Third Edition, 1992) shall be kept at the City. If the Contractor determines that the approved plan cannot be effectively carried out, the Contractor shall be responsible for notifying the plan approving authority and requesting a plan amendment as provided for in the Virginia Erosion and Sediment Control Law (Code of Virginia Title 10.1, Chapter 5, Article 4, Section 10.1-563C).

4. RIGHT TO AUDIT

For cost-reimbursement contracts, change orders issued for fixed priced contracts or other contracts in excess of \$30,000, which include the provisions of services, the Contractor shall retain all books, records and other documents relative to this Contract for five (5) years after final payment or until audited by the Office of the City Auditors shall have full access to and the right to examine and duplicate any of said materials during said period.

~~§ 15.4.4.3 The Owner and Contractor grant to any person or entity made a party to an arbitration conducted under this Section 15.4, whether by joinder or consolidation, the same rights of joinder and consolidation as the Owner and Contractor under this Agreement.~~

DESCRIPTION OF ITEMS

Pavement Management Program - Resurfacing

OWNER: CITY of NORFOLK, VIRGINIA

The work shall consist of the removal of existing asphalt, preparation of streets, and placement of hot mix asphalt overlay at various locations throughout the City of Norfolk. The work includes but is not limited to: milling, clipping, hauling and disposal of materials, asphalt patching, asphalt overlay, adjustment and/or installation of utility fixtures, restoration of shoulders and driveways, traffic control loops, and clean up. Saw cutting and erosion control shall be incidental to all applicable items. The contractor will furnish all labor, equipment, and materials to complete in place, all items under the contract.

DESCRIPTION OF ITEMS:

Bid Items No. 1 & No. 2 – Asphalt (SM-9.5A and SM-9.5D):

1.01 Scope of Work:

Shall consist of the tack coat and surface course asphalt, and including but not limited to all material, labor, equipment, transportation of material and incidentals necessary to accomplish the work, complete-in-place.

1.02 Measurement and Payment:

Asphalt concrete pavement shall be measured and paid for at the contract unit price per ton per depth specified (A 2" overlay depth is specified for this program). A tolerance of + ½" to – ¼" shall be allowed with a minimum lift thickness of 1.5". Payment shall: (a) only be made for the depth of asphalt placed within tolerance, and (b) will be verified against the applicable estimated quantities shown on the attached street lists.

Bid Item No. 3 - Type I Patching (Type SM-9.5A Asphalt):

1.01 Scope of Work:

Shall consist of asphalt surface repair (leveling and/or scratch course) prior to an asphalt overlay. The work shall include cleaning of existing surface, tack coat, placement of asphalt wedge or scratch course (limited to ¾" thickness at the thinnest section), and compaction of wedge or scratch course. All material, labor, equipment, and incidentals necessary to accomplish the work, complete-in-place shall be included. Determination of the scratch course leveling shall be directed by the Engineer.

1.02 Measurement and Payment:

Type I patching (leveling wedge / scratch course) shall be measured and paid for at the contract unit price per ton. A tolerance of + 1/8" to - 1/4" shall be allowed with a maximum lift thickness of 7/8". Payment shall: (a) only be made for the depth of scratch course asphalt placed within tolerance, and (b) will be verified against the applicable estimated quantities. (c) Any patch placed thicker than the tolerance shall be paid for at the contract unit price per ton of surface course production asphalt. (Bid Items #1 and #2)

Bid Item No. 4 - Type II Asphalt Repair (Type BM-25 Asphalt):

1.01 Scope of Work:

Shall consist of asphalt base repair (remove and replace) prior to an asphalt overlay. The work shall include saw cutting, removal and hauling of material, grading and compacting of stone base, tack coat, placement of full depth asphalt, and compaction of patch.

1.02 Measurement and Payment:

Type II Asphalt Repair shall be measured in square yards and paid for at the contract unit price per 6 inch depth.

Bid Items No. 5 – Install Speed Humps:

1.01 Scope of Work:

Shall consist of the tack coat and surface course asphalt, and including but not limited to all material, labor, equipment, transportation of material and incidentals necessary to accomplish the work, complete-in-place.

1.03 Measurement and Payment:

Speed humps shall be measure and paid for at the contract unit price per foot.

Bid Item No. 6 - Scarification and Rebase (Aggregate VDOT 21A):

1.01 Scope of Work:

Shall consist of the removal and disposal of the existing pavement, regrading, additional aggregate (if needed), and compaction of the base course prior to asphalt overlay. All materials, labor, equipment, and incidentals necessary to, complete-in-place shall be included.

1.02 Measurement and Payment:

Scarification and rebasing of the roadway surface shall be measured in square yards of pavement removed and be paid for at the contract unit price per square yard per 6 inches of depth.

Aggregate, where needed, shall be measured and paid for under Bid Item No. 23, section 1.02, Page DI-7.

Bid Item No. 7 – Undercutting and Backfilling:

1.01 Scope of Work:

Shall consist of all materials, labor and equipment necessary to excavate, remove, dispose of unsuitable material, and placement and compaction of aggregate backfill.

1.02 Measurement and Payment:

Undercutting and backfilling shall be measured in square yards and paid for at the contract unit price per square yard per 6 inch depth. Other depths of excavation will be paid for on a prorated basis.

Bid Item No. 8 - Clipping of Edges:

1.01 Scope of Work:

Shall consist of all materials, labor, equipment and incidentals necessary to clip away overgrown vegetation where no curb exists, hauling and disposal of clipped material.

1.02 Measurement and Payment:

Clipping of edges shall be measured and paid for at the contract unit price per square yard of vegetation removed.

Bid Item No. 9 - Asphalt Removal from Gutter Pan:

1.01 Scope of Work:

Shall consist of all materials, labor and equipment necessary to remove, haul, and dispose of asphalt overlay on existing gutter pans. The work shall include cleaning of tack from the gutter pan. To prevent damage to the curb and gutter, use of a milling machine is **not acceptable** as equipment to remove the asphalt.

1.02 Measurement and Payment:

Removal of asphalt shall be measured and paid for at the contract unit price per square yard of asphalt removed regardless of depth.

Bid Items No. 10 thru 13 - Milling:

1.01 Scope of Work:

Shall consist of all materials, labor, equipment, and incidentals necessary to remove and dispose of existing pavement by milling. All milled material becomes the property of the contractor. The owner makes no representation with regard to the milled material and the contractor must determine the suitability of the milled material for reuse and reflect this in the preparation of his bid.

1.02 Measurement and Payment:

Milling of asphalt, as directed by the Engineer, shall be measured and paid for in square yards of pavement surface removed per specified depth.

Bid Item No. 14 – Prep Milling:

1.01 Scope of Work:

Shall consist of all materials, labor, equipment, and incidentals necessary to remove and dispose of existing pavement by milling. All milled surfaces shall be power broomed clean of excess milled material and debris. The contractor is limited to providing this service as prep milling for City Forces who will be performing any necessary patching and the paving operations. The milled thickness shall be 1 1/2" Typical, but may vary as directed. The quantity (syd) is variable as directed by the Engineer. The City shall provide a 30 day advance notice of prep milling request. The contractor is not liable for any warranty of prep milled pavements. All milled material becomes the property of the contractor. The owner makes no representation with regard to the milled material and the contractor must determine the suitability of the milled material for reuse and reflect this in the preparation of his bid.

1.02 Measurement and Payment:

Milling of asphalt, as directed by the Engineer, shall be measured and paid for in square yards of pavement surface removed. Payment includes mobilization & demobilization as well as all other costs associated with doing the milling.

Bid Item No. 15 - Manhole Rings:

1.01 Scope of Work:

Shall consist of all materials, labor and equipment necessary to install **new** manhole rings, complete-in-place, prior to asphalt resurfacing.

1.03 Measurement and Payment:

Measurement and payment shall be based on counted units in the field.

Bid Item No. 16 - Pivoted Manhole Rings:

1.01 Scope of Work:

Shall consist of all materials, labor and equipment necessary to install **new** pivoted manhole rings, complete-in-place, prior to asphalt resurfacing.

1.04 Measurement and Payment:

Measurement and payment shall be based on counted units in the field.

Bid Item No. 17 - Prefabricated Valve Box Fixtures:

1.01 Scope of Work:

Shall consist of all materials, labor and equipment necessary install new prefabricated valve box fixtures, complete-in-place, in accordance with the contract documents and specifications.

1.02 Measurement and Payment:

Measurement and payment shall be based on counted units in the field.

Bid Item No. 18 - Adjustment of Manholes:

1.01 Scope of Work:

Shall consist of all materials, labor and equipment necessary to adjust existing manholes, complete-in-place, prior to asphalt resurfacing.

1.02 Measurement and Payment:

Measurement and payment shall be based on the number of adjusted units in the field.

Bid Item No. 19 - Adjustment of Valve Boxes:

1.01 Scope of Work:

Shall consist of all materials, labor and equipment necessary to adjust existing valve boxes, complete-in-place, prior to asphalt resurfacing.

1.02 Measurement and Payment:

Measurement and payment shall be based on the number of adjusted units in the field.

Bid Item No. 20 - Adjustment of Full-Depth Manholes:

1.01 Scope of Work:

Shall consist of all materials, labor and equipment necessary to full-depth adjustment of existing manholes, complete-in-place, prior to asphalt resurfacing.

1.02 Measurement and Payment:

Measurement and payment shall be based on the number of adjusted units in the field.

Bid Item No. 21 - Adjustment of Full-Depth Valve Boxes:

1.01 Scope of Work:

Shall consist of all materials, labor and equipment necessary for full-depth adjustment of existing valve boxes, complete-in-place, prior to asphalt resurfacing.

1.02 Measurement and Payment:

Measurement and payment shall be based on the number of adjusted units in the field.

Bid Item No. 22 - Adjustment of Manholes in Concrete:

1.01 Scope of Work:

Shall consist of all materials, labor and equipment necessary to full-depth adjustment of existing manholes in concrete, complete-in-place, prior to asphalt resurfacing.

1.02 Measurement and Payment:

Measurement and payment shall be based on the number of adjusted units in the field.

Bid Item No. 23 - Adjustment of Valve Boxes in Concrete:

1.01 Scope of Work:

Shall consist of all materials, labor and equipment necessary for full-depth adjustment of existing valve boxes in concrete, complete-in-place, prior to asphalt resurfacing.

1.02 Measurement and Payment:

Measurement and payment shall be based on the number of adjusted units in the field.

Bid Item No. 24 – Herbicide:

1.01 Scope of Work:

Shall consist of all materials, labor, equipment, and incidentals necessary to trim, haul away and dispose of vegetation over the roadway.

1.02 Measurement and Payment:

Herbicide shall be measured and paid for at the contract unit price per gallon.

Bid Item No. 25 – Tree Trimming:

1.01 Scope of Work:

Shall consist of all materials, labor, equipment, and incidentals necessary to distribute herbicide as specified, complete-in-place.

1.02 Measurement and Payment:

Tree trimming shall be measured and paid for on a lump sum basis.

Bid Item No. 26 & No. 27 - Shoulder Restoration:

1.01 Scope of Work:

Shall consist of all materials (**VDOT 21A or Top Soil**), labor, and equipment necessary to restore shoulder, complete-in-place, in accordance with the contract documents and specifications. VDOT 21-A stone shall be placed and struck off using the industry standard equipment or by hand raking. Top soil is to be placed, pulverized, raked, debris removed, and seeded to maximum germination.

1.02 Measurement and Payment:

VDOT 21A:

Shoulder restoration shall be measured and paid for at the contract unit price per ton. Net weight information shall be furnished in the form of individual weight tickets with each vehicle load. Partially used loads can be agreed upon by both the contractor and City or either the City or contractor may require a reweigh of the truck in the event agreement cannot be reached.

Top Soil:

Shoulder restoration shall be measured in average width units and paid for at the contract unit price for 2 foot width increments for the length installed.

Bid Item No. 28 - Driveway Restoration (ROC):

1.01 Scope of Work:

Shall consist of all materials, labor, and equipment necessary to restore driveways, complete-in-place, in accordance with the contract documents and specifications.

1.02 Measurement and Payment:

Driveway Restoration shall be measured and paid for at the contract unit price on a per ton basis. Net weight information shall be furnished in the form of individual weight tickets with each vehicle load. Partially used loads can be agreed upon by both the contractor and City or either the City or contractor may require a reweigh of the truck in the event agreement cannot be reached.

Bid Items No. 29 thru 31 - Traffic Loops:

1.01 Scope of Work:

Shall consist of all materials, labor, and equipment necessary to install new traffic loops, complete-in-place, in accordance with the contract documents and specifications. Including, sawcutting, placement and sealing of loop, and connection to traffic signal box.

1.02 Measurement and Payment:

Measurement and payment for traffic loops shall be based on counted units in the field for the type and length specified. No separate measurement shall be made for loop wire, sealant, or sawcutting.

Bid Item No. 32 - Traffic Control:

1.01 Scope of Work:

Shall consist of all materials, labor, tools, equipment and incidentals necessary to provide traffic control from the start to the completion of the project, in accordance with the contract drawings and specifications.

1.02 Measurement and Payment:

Traffic Control shall be measured and paid for at the contract unit price on a lump sum basis.

Bid Item No. 33 – Uniform Traffic Control:

1.01 Scope of Work:

Shall consist of providing sufficient off duty uniformed police officers to direct traffic through signalized intersections during operations which would cause traffic to have to proceed contrary to directions normally provided by the traffic signals, as directed by the Engineer.

1.02 Measurement and Payment:

Measurement and payment for uniformed traffic control will be on a man hour basis, including all overhead and any other labor overburdens.

Bid Item No. 34 - Variable Message Boards Rental:

1.01 Scope of Work:

Shall consist of providing variable message boards, as directed by the engineer, to inform traffic of milling and paving operations that could cause delay of normal traffic flow.

1.02 Measurement and Payment:

Measurement and payment for variable message boards will be on a per week, per sign basis, and shall include all costs associated with installing, maintaining, programming, relocating as necessary, and demobilizing, including all overhead and any other labor overburdens.

Bid Items No. 35 thru 40 - Pavement Line Markings:

1.01 Scope of Work:

Shall consist of all materials, labor, and equipment necessary to install pavement line markings, complete-in-place, in accordance with the contract documents and specifications.

1.02 Measurement and Payment:

Pavement line markings shall be measured and paid for at the contract unit price per linear feet for the width and type specified.

Bid Item No. 41 - Turn Arrows:

1.01 Scope of Work:

Shall consist of all materials, labor, and equipment necessary to install pavement turn arrow markings, complete-in-place, in accordance with the contract documents and specifications.

1.02 Measurement and Payment:

Turn arrows shall be measured and paid for based on counted units in the field, whether "left," "right" or combination.

Bid Items No. 42 thru 45 - Pavement Message Marking:

1.01 Scope of Work:

Shall consist of all materials, labor, and equipment necessary to install pavement message markings, complete-in-place, in accordance with the contract documents and specifications.

1.02 Measurement and Payment:

Payment shall be based on counted units in the field, for the symbol or word specified.

Bid Item No. 46 - Eradication of Existing Traffic Markings:

1.01 Scope of Work:

Shall consist of all materials, labor, and equipment necessary to eradicate existing traffic markings, complete-in-place, in accordance with the contract documents and specifications.

1.02 Measurement and Payment:

Eradication of existing traffic markings shall be measured and paid for at the contract unit price in actual linear feet of traffic marking eradicated.

Bid Items No. 47 & 48 - Snow Plowable Pavement Markers:

1.01 Scope of Work:

Shall consist of all materials, labor, and equipment necessary to install snow plowable pavement markers, complete-in-place, in accordance with the contract documents and specifications. Markers shall be installed as specified on the detail drawings.

1.02 Measurement and Payment:

Snow plowable pavement markers shall be measured and paid for based on counted units in the field for the type specified.

Bid Items No. 49 - Snow Plowing of Parking Lots:

1.01 Scope of Work:

Shall consist of all materials, labor, and equipment necessary to plow snow covered parking lots as directed by City Engineer. Snow shall be plowed to the side or back of the lot.

1.02 Measurement and Payment:

Snow plowing shall be measured and paid for at the contract unit price per square foot per 4 inch depth of snow. Other depths of plowing will be paid for on a prorated basis in square feet of pavement surface plowed per additional 1 inch depth of snow. Payment includes mobilization & demobilization as well as all other costs associated with doing the plowing.

Bid Items No. 50 - Snow Plow and Hauling City Streets:

1.01 Scope of Work:

Shall consist of all materials, labor, and equipment necessary to plow snow covered streets and haul to a designated downtown location (typ. Harbor Park lot) as directed by City Engineer.

1.02 Measurement and Payment:

Snow plowing and hauling shall be measured and paid for at the contract unit price per square foot per 4 inch depth of snow. Other depths of plowing will be paid for on a prorated basis in square feet of pavement surface plowed per additional 1 inch depth of snow. Payment includes mobilization & demobilization as well as all other costs associated with doing the plowing.

**PAVEMENT MANAGEMENT PROGRAM
RESURFACING
CITY of NORFOLK, VIRGINIA
SPECIAL PROVISIONS**

MINIMUM DOLLARS OF WORK PERFORMED REQUIREMENT:

To ensure the Contract shall be completed within the contract allotted number of days, **the Contractor must achieve a minimum of \$250,000.⁰⁰ of work performed per calendar month.** The work shall be defined as billable bid items as outlined in the Schedule of Unit Prices.

Liquidated Damage (LD):

The City shall impose a Liquidated Damage of 5 Cents for each Dollar on the Contractor for short of the monthly minimum dollar of work performed requirement. The Liquidated Damage will be calculated and assessed by the City on a calendar month basis starting the first full calendar month of the contract period. The Liquidated Damages will be deducted by the City from the payment to the Contractor at the end of the calendar month in which the Contractor fails to meet the minimum monthly dollar of work performed requirement. If the Contractor should exceed the minimum monthly dollar of work performed requirement, then the Contractor **shall not** interpret the excess could be added to any previous months' work performed that were below the minimum requirement for the purpose of decreasing previously assessed Liquidated Damages.

Incentive Bonus:

The City shall pay an Incentive Bonus of 5 Cents for each Dollar to the Contractor for every dollar over the minimum monthly dollar of work performed requirement which exceeds \$25,000 above the set goal per calendar month. The Incentive Bonus will be calculated and awarded by the City on a calendar month basis starting the first full calendar month of the contract period. The Incentive Bonus will be added by the City to the payment to the Contractor at the end of the calendar month in which the Contractor meets the minimum monthly dollar of work performed requirement. The \$25,000 buffer zone between the minimum monthly dollar of work performed requirement and the receipt of an Incentive Bonus will be banked. The Contractor shall only be allowed to accrue a maximum aggregate incentive bonus of **\$100,000.⁰⁰** for this contract.

Initial Partial Month:

The Contractor shall start work within seven (7) calendar days from issuance of Notice to Proceed. Liquidated Damages and Incentive Bonus shall not apply during the initial partial month of the contract period; however, any monthly dollars of work performed during this period will be banked and may be added to future monthly dollars of work performed that is less than the minimum monthly dollars of work performed requirement.

Winter Shutdown:

Exceptions to the minimum monthly dollars of work performed shall be made during the **Winter Shutdown period, which is from December 1, 2015 until April 1, 2016.** If work is allowed by the Engineer during the Winter Shutdown (December through March) period, any resulting monthly dollars

of work performed will be banked with all other excess monthly dollars of work performed, and may be added to future production that is less than the minimum monthly dollars of work performed requirement.

Extreme Weather Conditions:

The minimum monthly dollars of work performed may be adjusted by the Engineer due to extreme weather conditions, as defined below, on a prorated basis. In all cases, the Contractor must request any prorated minimum dollars of work performed requirement reduction **in writing** to the Director of Public Works or his designee with the applicable pay application. The calculation for prorating the minimum monthly dollars of work performed is as follows:

$$\frac{(\text{minimum monthly \$ of work performed requirement})}{(\text{total workdays for the month})} \times \frac{\# \text{ of extreme weather}}{\text{days requested}} = \text{lost performance (\$)}$$

$$\text{minimum monthly \$ of work performed requirement} - \text{lost performance (\$)} = \text{prorated minimum monthly (\$) of work performed requirement}$$

Notes:

1. The monthly performance and recorded workdays are for the calendar month in which the extreme weather conditions apply.
2. The "# of extreme weather days requested" are those actual days in excess of those listed below.
3. Sundays are not to be included in these calculations.

Any weather condition (or combination of weather conditions) that prevents the Contractor from working a number of days during a calendar month, which number exceeds the number of work days listed below for that calendar month, shall be considered extreme. Delays will only be allowed for the amount of lost work days in excess of the following:

April	3	October	3	} Winter Shutdown
May	4	November	3	
June	4	December		
July	4	January		
August	3	February		
September	3	March		

In no way is the Contractor to interpret the aforementioned allowed days per month to be cumulative.

Contingency:

Contingency for minor adverse weather conditions, holidays, and Contractor downtime has been incorporated into the minimum monthly dollars for work performed rate specified herein. The Contractor shall not delay execution of the work due to downtime of equipment, insufficient manpower, or difficulty in the procurement of materials.

Additional Work:

Time extension for additional work that may be added to the contract as a Change Order shall be prorated by the Engineer using the minimum monthly dollars for work performed rate and added to the end of the contract time.

Delays past Completion Date:

In the case where the Contractor causes delays past the contract Completion Date (as adjusted for City-approved time extension, if any), the Liquidated Damage rate shall still apply for work performed that is less than the monthly minimum requirement based on a prorated basis.

Waiver:

The Liquidated Damages cannot be waived or adjusted by the City in the absence of a written waiver signed by the Director of Public Works or his designee.

EXAMPLE. The following is an example of assessments of Liquidated Damage and Incentive Bonus:
This example is based on \$150,000.⁰⁰ of work performed per month requirement.

Month	Month's \$ Performance	Accumulated \$ Performance	Monthly \$ Performance Excess/(Deficit)	Accumulated Bankable \$,s	Month's Liquidated Damage	Month's Incentive Payment
July * 15-30	75,000	75,000	75,000	75,000	N/A	N/A
Aug.	150,000	225,000	0	75,000	0	0
Sept.	175,000	400,000	25,000	100,000	0	0
Oct.	225,000	625,000	75,000	125,000	0	2,500
Nov.	250,000	875,000	100,000	150,000	N/A	3,750
Winter * Shutdown	35,000	910,000	35,000	185,000	N/A	N/A
Apr.	150,000	1,060,000	0	185,000	0	0
May	50,000	1,110,000	(100,000)	85,000	0	0
June	50,000	1,160,000	(100,000)	0	750	0
July	100,000	1,260,000	(50,000)	0	2,500	0
Aug.	200,000	1,460,000	50,000	25,000	0	1,250
Sep.	250,000	1,710,000	100,000	50,000	0	3,750
Oct.	190,000	1,900,000	40,000	75,000	0	750
Nov.	75,000	1,975,000	(75,000)	0	0	0
Total	1,975,000				3,250	12,000

*** In this example, the month of July and the work performed during Winter Shutdown are considered partial months. Therefore the entire dollar amount is banked.**

Miscellaneous:

At no time during the performance of a contract shall the Contractor or producer furnish any material for other purposes or perform any other work which will interfere with the continuous laying of the bituminous surface required under the contract or cause any delay in the execution of the work, except by written consent of the Engineer. No adjustment in price will be made if the supplier finds it necessary to secure materials for the fulfillment of the contract from sources other than those intended in

the bid when the same was submitted. Further, any delays to completion of the work caused by adverse weather conditions or winter shutdowns shall not be justification for increase of unit prices.

SNOW REMOVAL CAPABILITY:

During snow storms, the City may have occasion to need assistance in removal of snow from downtown streets and City parking lots. The City will call upon the contractor when 4 inches or greater of snow fall is projected for the snow event. Assistance may consist of snow removal or plowing on:

A. Light Rail Impacted Streets:

1. E. Main Street car travel lanes from Water Street to Union Street
2. Plume Street car travel lanes from St Pauls Boulevard to City Hall Avenue.
3. Monticello Avenue car travel lanes from City Hall Avenue to Charlotte St.
4. Charlotte Street car travel lanes from Monticello Avenue to Duke Street

Snow removal on these streets requires the contractor to haul the snow to a designated downtown location. For bid purposes the location will be the Harbor Park parking lot. If contractors equipment or personnel will have to operate within the outside edge of the differential contrasting (red) pavement color, which may vary from a range of 1.5 feet to 4 feet from the outer track rail, or within ten (10) feet of the Overhead Catenary System (hereinafter “OCS”) wires, “Emergency Track access / Clearance” from the City and HRT is required. Personnel working in this designated area will need to have had track access training from HRT. Contractor will provide a list of employees that have current track access training from HRT within 60 days of award.

B. Other Downtown City Streets:

Snow will be plowed and hauled to Harbor Park parking lot.

C. City Parking Lots:

The snow plowing **may** be requested on the following lots:

Parking Lots at Municipal Buildings

Location		Address	Approximate Square Feet
Higher Priority			
Plume Street lot	Main Lot	550 E Plume St	48,195
Education lot	Rear Lot	800 E City Hall Ave	47,787
St Pauls lot	Main Lot	400 St Pauls Blvd	35,993
Brambleton lot	Main Lot	698 St Pauls Blvd	119,101
Harrison Opera House lot	Main Lot	160 W. Virginia Beach Blvd	149,531
Cedar Grove lot	Front Lot	1000 Monticello Ave	127,991
Harbor Park lot	Main Lot	101 & 150 Park Ave	431,912
Central Plant	Rear Lot	920 E Main St	11,576
Third Precinct	Front Lot	975 Goff St	21,345
Police Training Center	Front Lot	2500 N Military Hwy	14,957
Police Operations Center	West Lot	3661 VA Beach Blvd	15,116
Juvenile Detention Center	Main Lot	1260 Security Lane	26,535
Third Precinct	Rear Lot	975 Goff St	36,659
School Admin Staff Lot	Main Lot	800 E City Hall Ave	27,515
Police Operations Center	Main Lot	3661 VA Beach Blvd	116,586
Police Training Center	Secure Vehicle Lot	2500 N Military Hwy	116,418
Granby Muncpal Building	Main Lot	400 Granby St	5,661
General Dist Court Lot	Main Lot	811 City Hall Ave	16,563
City Hall Entrance Lot	Main Lot	810 Union St	8,772
Traffic Operations Center	Main Lot	4505 Patent Rd	16,096
Medium Priority			
Park Place NSC	Main Entrance Lot	606 W 29th St	
Little Creek Branch	Main lot	7853 Tarpon Ave	
Jordon-Newby Branch	Main lot	961 Park Ave	
Barron F. Black Branch	Main Lot	6700 Tanners Creek Rd	
Van Wyck Branch	Main lot	1363 DeBree Ave	
Campostella Community Ctr	Main Lot	1130 Leake St.	
K-9 Training Facility	Main lot	6101 S Cape Henry Ave	
Pistol Range	Main lot	1501 Pritchard St	
Park Place NSC	Vehicle Storage Lot	606 W 29th St	
Norfolk Animal Mgt Center	Front Lot	5585 Sabre Rd	
Berkley NSC	Rear Lot	925 S Main St	

Huntersville NSC	Rear Entrance Lot	830 Goff St
East Ocean View Recreation Ctr	Ballfield Lot	9520 20th Bay Ave.
Larchmont Branch	Main lot	6525 Hampton Blvd
Norfolk Visitor Center	Main Lot	4th View St
Bayview Recreation Center	Main Lot	8613 Willow Terrace
East Ocean View Recreation Ctr	Center Lot	9520 20th Bay Ave.
Radio Repair / Voter Stg Bldg	Main Lot	1112 Azalea Garden Rd
Norfolk Fitness & Wellness Ctr	Ballfield Lot	7300 Newport News Ave
Norfolk Fitness & Wellness Ctr	South Lot	7300 Newport News Ave
Fairlawn Recreation Center	Main Lot	1014 Kempsville Road
Vivian C. Mason Arts&Tech Ctr	Main Lot	700 E Onley Rd.
Berkley NSC	Front Lot	925 S Main St
Ingleside Recreation Center	Main Lot	948 Ingleside Rd.
Vector Control	Rear Lot	2800 Tarrant St
Sherwood Forest Community Ctr	Main Lot	4537 Little John Dr.
Park Place NSC	West Lot	606 W 29th St
Titustown Recreation Center	Main Lot	7545 Diven St.
Vector Control	Lot / Drive	2800 Tarrant St
Berkley Recreation Ctr / School	Main Lot	121 W Liberty St.
Third Precinct	Vehicle Storage Lot	975 Goff St
Park Place NSC	North Lot	606 W 29th St
Huntersville NSC	Main Lot	830 Goff St
Norfolk Fitness & Wellness Ctr	Main / Entrance Lot	7300 Newport News Ave
Pretlow (new building)	Main Lot	111 W Ocean View Ave
H.C. Downing Branch	Main Lot	555 Liberty St
Captian's Quarters Rec Center	Main Lot	800 Little Bay Ave.
Tarrallton Recreation Center	Main Lot	2100 Tarrallton Dr.

Low Priority lots

Riverside Cemetery	Admin Bldg Lot	1000 E Indian River Rd
Lakewood Park	Dance/Music Ctr Lot	1612 Willow Wood Ave.
Hebrew Cemetery	Drive / Parking lot	238 E Princess Anne Rd
Barraud Park	Playground Lot	1048 Vista St.
Lakewood Park	Athletic Ctr Lot	1612 Willow Wood Ave.
Barraud Park	Rec Center Lot	1048 Vista St.
Barraud Park	Tennis Court Lot	1048 Vista St.
Northside Park	Walking Path Lot	8400 Tidewater Dr.
Tarrallton Park	Hockey Rink Lot	2100 Tarrallton Dr.
Lakewood Park	Willowwood Church Lot	1612 Willow Wood Ave.

Lafayette Park	Tennis Court Lot	Granby St.
Northside Park	Tennis Court Lot	8400 Tidewater Dr.
Larchmont Park	Main Lot	1167 Bolling Ave.
Northside Park	Picnic Shelter Lots (3)	8400 Tidewater Dr.
Poplar Hall Park	Picnic Shelter Lot	5523 Pebble Lane
Tarrallton Park	North Entrance Lot	2100 Tarrallton Dr.
Haven Creek Boat Ramp	Main Lot	Llewellyn Ave.
Tarrallton Park	North Lot (at playground)	2100 Tarrallton Dr.
Tarrallton Park	Main Lot (at playground)	2100 Tarrallton Dr.
Tarrallton Park	Tennis Court Lot	2100 Tarrallton Dr.
Lakewood Park	Entrance Lot	1612 Willow Wood Ave.
Barraud Park	Ballfield Lot / Drive	1048 Vista St.
Lafayette Park	North Lot	Granby St.
Lakewood Park	Main Lot	1612 Willow Wood Ave.
Northside Park	Pool/Playground Lot	8400 Tidewater Dr.
Lafayette Park	South Lot	Granby St.
Northside Park	Concession/Entr Rd Lot	8400 Tidewater Dr.
Willoughby Boat Ramp	Main Lot	13th View St.
Forest Lawn Cemetery	Admin Bldg Lot	8100 Granby St

CONTRACTOR'S QUALITY CONTROL PROGRAM:

Progress Schedule:

The Contractor shall submit a progress schedule in the form of a bar chart satisfactory to the Engineer that shows the proposed order of work and indicates the time required completing the items of work. The schedule may be used as a basis for establishing major construction operations and as a check on the progress of the work. The schedule shall, however, be subject to revision in accordance with adverse weather conditions and change orders.

In the event of a major change (scope/schedule/sequence) as determined by the Engineer and/or the Contractor's failure to comply with the approved schedule, the Contractor shall change the bar chart so as to show the current mode of operation, prior to the next payment.

The City may assign sequence of Work with reasonable notice from time to time, which may impact productivity, without additional cost to the contract.

Pavement Cores:

The Contractor shall have a pavement core taken and analyzed for thickness, density, and design mix analysis for every 25,000 tons of asphalt placed, or when mix design changes. This requirement is applicable to surface course asphalt (SM-9.5A and SM9.5D). Test results shall be submitted to the Engineer. Any cores which fail will be subject to additional testing and corrective actions as designated by the Engineer. All costs of coring and analysis shall be incurred by the Contractor.

Daily Reports:

The Contractor shall submit daily reports for **each** work crew and **each** subcontractor, either at the end of the work day or beginning of the following work day. Loop Detector test reports shall be included in the daily report submittal immediately following testing of the loop(s).

CHANGE IN SCOPE OF WORK:

Additions or deletions to the work under this contract shall conform to the contract documents and specifications contained herein and Article 7 of the General Conditions.

Change Order:

A change order is a written order to the Contractor signed by the Owner, issued after execution of the contract, authorizing a change in the work or an adjustment in the contract quantities or the contract time. The contract quantities contract time, and change in work may be changed **only** by Change Order. A Change Order signed by the Contractor indicates his agreement therewith, including the adjustment in the contract quantities and/or the contract time.

PARTIAL PAYMENTS:

Partial Payments for the work under this contract shall conform to the contract documents and specifications contained herein and Article 9 of the Supplementary General Conditions.

In addition to monthly pay requests, the Contractor shall submit four (4) copies of production completed for **each street** since the previous month. The production sheet shall include:

Street Name:

From: and To:

Description of items with quantities, units, and a total price for each street

ASPHALT:**Mix Design:**

Asphalt concrete shall conform to the requirements for the type designated in accordance with VDOT Sec. 211. All streets shall require a Surface Mixture conforming to Type SM-9.5A, **with the exception of those listed below**, which will require a Surface Mixture conforming to SM-9.5D.

**Tidewater Drive
Virginia Beach Boulevard
West Main Street
Granby Street**

Liquid Asphalt Binder Base Index:

The Contractor shall be allowed an adjustment for the cost of production asphalt (Bid Items #1 & #2 only) based upon a minimum of a 15% increase or decrease in the cost of the liquid asphalt binder. The Contractor shall submit in writing to the City, a request for the unit price adjustment. Upon receipt of notarized statement from the Contractor's liquid asphalt binder supplier stating the new price for the liquid asphalt binder, the contract unit price for production asphalt shall be adjusted for the tonnage of

asphalt remaining in the contract. The City reserves the right to initiate an adjustment without request for decreases in liquid asphalt binder costs in excess of the 15% limit.

TRAFFIC CONTROL:

It shall be the Contractor's responsibility to place City Furnished signs, where necessary, **at least 24 hours** prior to beginning any work on streets within this contract.

Unless otherwise directed, there will be no operations on major arterial streets between the morning hours of **6:00 - 9:00 A.M.** and the evening hours of **3:30 - 6:00 P.M.**, Monday through Friday. All traffic control signage shall be removed during the non-operational hours specified herein with the exception of any signage necessary to maintain traffic flow. Any work involving signalized intersections shall require off-duty, uniformed police to direct traffic against signal lights. Off-Duty, uniformed Police shall be current City of Norfolk Police Officers. Roadway work on arterial streets shall not be allowed on the Friday before any Federal Holiday without express written approval.

Major arterial streets shall have one lane of traffic open in each direction at all times. Newly resurfaced traffic lanes shall remain closed and guarded until mat is compacted and cured such that traffic is not detrimental to the surface finish, in accordance with industry standards. For any multi-lane closure or detour of traffic, a detailed traffic control plan must be submitted to, and approved in writing by the City Traffic Engineer.

Traffic control of streets where pavement markings have been eradicated shall be the responsibility and sole expense of the Contractor to properly maintain any temporary construction signs for a period up to fourteen (14) calendar days following the completion of the resurfacing locations. The contractor shall remove all temporary construction signs **after** all pavement markings have been reestablished. **The use of temporary Overlay Markers for centerline delineation is required.**

The Contractor shall be responsible for ensuring no work is scheduled during scheduled **Special Events** and **Parades**. The schedules of special events and parades can be obtained from the Department of Public Works, Division of Transportation, Permit Office.

The Contractor shall post variable message boards Seven (7) days prior to any work on arterial and connector streets as listed in the City's Right-of-Way Excavation and Restoration Manual, (as amended), or as directed by the Engineer

COOPERATIVE PROCUREMENT:

The City of Norfolk (the "City") is issuing this Invitation to Bid on behalf of itself and other public agencies, including but not limited to the Norfolk School Board and Norfolk Redevelopment and Housing Authority. Bidders are hereby advised that these and other public agencies may enter into a contract with the lowest responsive responsible bidder for resurfacing work based on the unit prices set forth in the bid submitted by such bidder in response to this Invitation to Bid.

CONTRACT EXTENSION:

The City reserves the right to extend the contract for a fixed period not to exceed 1 year beyond the original contract completion date for new work based on the same contract scope/specifications. The contract may be extended upon joint agreement of the City and the Contractor at the same unit prices of the original Contract. A price adjustment exception to the unit price of production asphalt shall be considered. This consideration shall be based upon the fluctuating market price of liquid asphalt binder and shall conform to the contract documents and specifications contained herein. Both parties shall advise each other in writing of their intention to extend or not extend the contract at least 3 months prior to the latest contract completion date.

SECTION 2.1 - GENERAL STATEMENTS

1. **GENERAL:**

The following sections, as listed in the "Table of Contents", shall comprise the Technical Specifications for this contract. The General and Special Provisions set forth heretofore in the specifications shall be made a part of these technical specifications and shall govern wherever applicable.

2. **DESCRIPTION OF WORK:**

The Contractor shall provide all labor, equipment, and materials required to complete in place hot mix asphalt overlays at various locations throughout the City of Norfolk. Associated work includes, but is not limited to, miscellaneous street repairs, adjustment of utility fixtures, repair of concrete curb and gutter, improvement of surface storm water runoff structures, installation of traffic loops, and installation of pavement striping and markers. A list of streets proposed for resurfacing and associated maps are attached.

3. **REFERENCE SPECIFICATIONS:**

Standards and specifications from the following may be referred to in the detailed Technical Specifications which follow; such form a part of this specification to the extent indicated by the references hereinafter:

A.A.S.H.T.O.	American Association of State Highway and Transportation Officials
A.N.S.I.	American National Standards Institute
A.S.T.M.	American Society for Testing Materials
A.W.W.A.	American Water Works Association
NCDS	Norfolk City Design Standards
HRPDC	Hampton Roads Planning District Commission
HRPDC RCS	Regional Construction Standards, current edition
ISSA	International Slurry Seal Association
MUTCD	Federal Manual on Uniform Traffic Control Devices
VDOT	Virginia Department of Transportation
VDOT Spec.	Road and Bridge Specifications, current edition
VDOT Std.	Road Designs and Standards, current edition
VDOT I&IM	Instructional and Information Memoranda
VTM	Virginia Test Methods
Virginia Work Area Protection Manual, current edition	
Virginia Erosion and Sediment Control Handbook, current edition	
Virginia Stormwater Management Handbook, current edition	
City of Norfolk – Right of Way Excavation & Restoration Manual, current edition	
Norfolk Stormwater Design and Construction Manual, current edition	
Unless otherwise noted, reference is to the latest dated publication of the specification or standard including any amendments or addenda.	

Unless otherwise noted, all sections in the Virginia Department of Transportation (VDOT) specifications pertaining to measurement and payment shall be deleted.

4. INDICATED ITEMS:

Items not directly outlined in these specifications shall be constructed in accordance with the above referenced specifications. Measurement and payment for these items will be as set forth in the Bid Proposal. If not set forth in the Bid Proposal, the cost of these items shall be included in the price bid for other items which may include this work, and no additional compensation will be considered.

5. CONFLICT:

In case of any conflict between the plans and the technical specifications and/or other references, the specifications shall govern.

6. UNASSIGNED TESTING:

- A. The City may, at any time, require testing to ensure compliance with the specifications of this contract.
- B. All tests will be performed by a recognized testing laboratory, approved by the City, qualified in the field of materials to be tested.
- C. If applicable, all tests will be conducted in accordance with the VDOT Manual for Virginia Test Methods, current edition.
- D. Payment for all unassigned tests performed will be in accordance with the following:
 - 1. The cost of all tests failing to meet minimum requirements will be borne by the Contractor.
 - 2. The cost of all tests that either meet or exceed minimum requirements will be borne by the City.

7. FIELD ENGINEERING AND SURVEYING:

The Contractor is responsible for all field engineering and surveying required to complete any project. The cost for all field engineering and surveying will be included in the bid price of the contract and no additional compensation will be made.

8. CLEANUP DURING CONSTRUCTION OF PROJECT:

The Contractor shall on a continuous basis throughout the course of the Project, provide clean up and restoration of streets within the project limits. Trash, debris, and other foreign matter shall be disposed of as directed by the Engineer in accordance with the specifications herein.

A **HAUL PERMIT MAY BE REQUIRED** and may be obtained from, Public Works Department, Right of Way Division, 2nd Floor, City Hall, 664-7306.

9. CLEANUP ON COMPLETION OF PROJECT:

On completion of any of the work covered by any of the sections of this Project, the Contractor for said section shall clean up entire premises occupied by his operations, and this area shall be left neat and clean of trash, debris, piles of earth, waste materials, and other foreign matter which shall be disposed of off site. Clean up to include sweeping of the street with a mechanical sweeper after curing of surface treatment. The entire project or sections thereof shall be made ready for the Owner's use.

10. FINAL INSPECTION:

Final inspection, by the Inspector and/or the Engineer, accompanied by one or more representatives of the Contractor, shall be made of any section of completed work before any equipment is moved from the general location of the work. The Engineer shall note any faulty work or workmanship in writing. The Contractor shall be responsible for corrective actions within 30 days of notice in accordance with the instructions given by the Engineer. This work shall be done at no additional cost to the City. After completion of the project, all work shall be guaranteed for the period stipulated in the contract.

11. GUARANTEE:

The Contractor shall deliver the work to the Owner complete and in first-class condition in every respect. The Contractor shall guarantee the material and workmanship for a period of twelve (12) months from the time of completion of a section of work that has passed a final inspection and has been accepted by the City. If during this time, any defects show up due to defective material, negligence, or want of proper care on the part of the Contractor, the Contractor shall furnish such new materials as necessary and repair such defects and put the work in proper order at his own expense upon receipt of notice from the Engineer.

12. PAYMENT:

Payment for all items in the following sections shall be at the Lump Sum or Unit Price Bid for each item on the Schedule of Unit Prices, measured as specified, which prices shall constitute full compensation for furnishing all equipment, materials, labor, and supervision necessary in order to complete the work.

End of Section

SECTION 2.2 - TRAFFIC CONTROL

PART 1 - GENERAL

The Contractor shall maintain traffic throughout the entire project site in accordance with all rules and regulations stipulated in the Specifications and under the direction of the City Transportation Engineer or Right of Way Administrator or their designee. The Contractor will be required to obtain a Right of Way work permit from the Department of Public Works, Right of Way Division before commencing any work in the right of way.

All traffic controls shall be in conformance with the latest editions or revisions to the Federal Manual on Uniform Traffic Control Devices (MUTCD) and the Virginia Work Area Protection Manual.

PART 2 - PRODUCTS

2.01 REFLECTIVE SHEETING CONFORMANCE:

- A. Encapsulated lens sheeting shall be used on signs (except logo sign business panels and orange construction/maintenance activity signs), barricades, vertical panels (group 2 channelizing devices), standard road edge delineators and special road edge delineators.
- B. Reboundable sheeting shall be used on all cones, tubular delineators and drums.
- C. Prismatic lens sheeting shall be used on barrier delineators, guardrail delineators, and interstate road edge delineators which utilize reflective sheeting.
- D. Fluorescent prismatic lens sheeting shall be used on orange construction and maintenance activity signs, and barrier vertical panels installed on concrete traffic barrier service. Flexible sign base material (mesh signs) is still permitted for daytime use.
- E. Reflective sheeting as noted in the logo standards shall be used on logo business panels.

2.02 FLAGGING CONFORMANCE:

Flags should be red, at least 24 by 24 inches in size, made of good grade of bright red material secured to a staff approximately 36 inches in length. The free edge shall be weighted to insure that the flag will hang vertically, even in high wind. Sign paddles bearing the regulatory message "STOP" or "SLOW" shall be fabricated from sheet metal or other light, semi-rigid material. They shall be at least 18 inches wide. The lettering on the paddles shall be 6-inch Series C letters (*in accordance with the Federal Manual on Uniform Traffic Control Devices - MUTCD*). The background of the "STOP" face of the combination sign paddle shall be red and octagon shaped with white letters and border. The background of the "Slow" face shall be orange and diamond shaped with black letters and border. The STOP/SLOW paddle shall be reflectorized.

PART 3 - EXECUTION

3.01 MAINTENANCE DURING CONSTRUCTION:

The Contractor shall maintain the work from the beginning of the construction operations until final acceptance of this project. This maintenance shall constitute continuous and effective work executed day by day with adequate equipment and forces to the end that the roadway is kept in satisfactory condition at all times, and access to all abutting properties is maintained, including barricades and warning signs. Unless otherwise provided, all streets and highways shall be kept open to all traffic by the Contractor. The Contractor shall keep the portion of the road being used by public traffic, whether it be through or local traffic in such condition that traffic will be adequately accommodated; provided, however that snow and ice removal will not be required for the accommodation of the traffic.

3.02 INGRESS TO/EGRESS FROM ADJACENT PROPERTIES:

The contractor shall maintain ingress to and egress from all business and residential properties, during construction at no additional cost. The contractor shall maintain ingress and egress to residential properties at all times or coordinate work with residents so they understand constraints during work.

3.02 FLAGGING TRAFFIC:

Competent, courteous, and neat flagmen shall be provided in sufficient numbers to orderly control, and if necessary, to stop traffic, advise the public concerning delays, and the manner in which they should proceed, and to keep traffic in their respective lanes along the project. The flagmen shall use either flags or sign paddles to regulate traffic; however, the use of both flags and sign paddles on the same project will not be allowed. The use of STOP/SLOW paddles should be the primary, and is the preferred, hand signaling device.

3.03 DELAY:

Two-way traffic shall be maintained at all times, unless otherwise approved. The Contractor shall not stop traffic without permission. Parking will be temporarily restricted where necessary to maintain two-way traffic flow. When one-way traffic is approved, the Contractor shall provide the necessary flagmen to direct such traffic.

3.04 BARRICADE AND WARNING SIGNS:

The Contractor will provide and erect any required sign and barricades when necessary, at the termination of the project. The Contractor will provide standard signs, standard portable and non-portable barricades, reflectorized drums, arrow lights, temporary striping, and other types of delineators required within the limits of the project and the Contractor shall erect, move and maintain such signs and devices as required during the progress of the work. All other devices, such as cones or other types of delineators and separators, between traffic and work areas along shoulders, ditches, embankments, and structures, required within the limits of the project, shall be furnished, erected, maintained, moved and removed by the Contractor subject to the approval of the Engineer. Within urban areas, particular emphasis should be placed on pedestrian traffic

control provisions such as, but not limited to, advanced warning and pedestrian detour routes. The Contractor shall take all necessary precautions for the protection of the work and the safety of the public as described in Section 105.14 of the VDOT Specifications. Streets closed to traffic shall be protected by effective barricades, and obstructions shall be illuminated during hours of darkness.

3.05 TRAFFIC CONTROL PLANS:

Where there is work that will interfere with the normal flow of traffic, the Contractor shall submit to the Department of Public Works, Right of Way Division, for approval, a plan for the maintenance of traffic through the construction area. This plan shall show the type of warning signs, barricades, traffic cones, etc., and their placement and where flagmen, if necessary, will be stationed. This plan shall be submitted at least five (5) working days prior to the time the Contractor intends to begin work. The Contractor shall not begin any work which will interfere with any traffic until the plan is approved by the City. The Contractor may be required by the City to modify the plan as work progresses.

End of Section

SECTION 2.3 - EROSION & SEDIMENT CONTROL

2.3-1 GENERAL REQUIREMENTS

The Contractor shall furnish all labor, material, and equipment to protect the job site and immediate areas from damage due to erosion and siltation.

2.3-2 QUALITY CONTROL

All erosion control measures shall be in accordance with the *Virginia Erosion and Sediment Control Handbook*, the *Virginia Drainage Manual*, current editions, and the *VDOT Road & Bridge Specification (2002)*.

2.3-3 INSPECTIONS

Additional inspections for E&S control shall be performed by the Environmental Services Bureau of the City Planning Department, as agents of the Public Works Department.

2.3-4 PRODUCTS

All materials use in this project for erosion and sediment control shall conform to the applicable requirements of the referenced manuals and specifications.

2.3-5 EXECUTION

A. The Contractor shall exercise every reasonable precaution, including application of temporary and permanent environmental measures, throughout the duration of the project to control erosion and prevent eroded materials from leaving contract limits in addition to preventing siltation of rivers, streams, lakes, and impoundments. Such measures shall include, but are not limited to, the use of beams, dikes, dams, and sediment basins, and fiber mats, brush silt barriers, silt fences, netting, gravel or crushed stone, mulch, stage seeding, slope drains, inlet protection, and other methods.

B. Temporary and permanent erosion and siltation control measures shall all be applied to erodible material exposed by an activity associated with the construction including local material sources, stockpiles, waste areas, and all haul roads.

END SECTION 2.3

SECTION 2.4 – RESTORATION

PART 1 - GENERAL

1.01 RELATED DOCUMENTS:

General provisions of Contract, including General and Supplementary Conditions and Division-1 Specification sections, apply to work of this section.

1.02 DESCRIPTION OF WORK:

Extent of restoration work shall include all material, equipment, labor, and traffic control necessary to restore the shoulders of the roadway and all aggregate driveways within the right of way. Any damage to the asphalt concrete pavement from the restoration process shall be repaired and accepted by the City at no additional cost.

1.03 SITE CONDITIONS:

Restoration shall begin no later than 24 hours after the asphalt concrete surface course has been placed and shall be completed as the time limits specify.

<u>Restoration of:</u>	<u>Allowable Time to Complete:</u>
Driveways	5 days
Shoulders	14 days

PART 2 - PRODUCTS

2.01 MATERIALS:

- A. Satisfactory soils materials are defined as those complying with ASTM D2487 soil classification groups GW, GP, GM, SM, SW, and SP.
- B. Unsatisfactory soil materials are defined as those complying with ASTM D2487 soil classification groups GC, SC, ML, MH, CL, CH, OL, OH, and PT.
- C. Driveway Aggregate Material: Naturally or artificially graded mixture from crushed gravel, crushed stone, and crushed slag, in accordance with VDOT Sec. 205.
- D. Shoulder Aggregate Material: Naturally or artificially graded mixture from crushed gravel, crushed stone, or sand; without soil mortar, in accordance with VDOT Sec. 209.

PART 3 - EXECUTION

3.01 A. SHOULDERS:

1. The shoulder material shall be placed and spread mechanically. Handwork shall **only** be allowed for “touch up” work and areas not accessible by equipment.
2. Shoulder material shall be flush with the edge of pavement surface and sloped uniformly to minimum distance of 2 ft. from the finished edge of pavement unless field conditions make it impossible.

B. DRIVEWAYS:

1. The driveway material shall be placed mechanically or manually.
2. Driveway material shall be flush with the edge of pavement surface and sloped uniformly to minimum distance of 4 ft. from the finished edge of pavement. The City’s inspector, to achieve the desired restoration, may adjust the distance.

END OF SECTION 2.4

SECTION 2.5 - STORM DRAINAGE

PART 1 - GENERAL

1.01 These Special Provisions supplement and amend the City of Norfolk Department of Public Works Standard Specifications and the VDOT Specifications.

1.02 DESCRIPTION OF WORK:

Work to be performed under this contract shall include the removal of any existing asphalt overlay of the gutter pans, See Detail D-1, at various locations where curb and gutter exists. The Contractor shall identify the existing curb and gutter that has been overlaid with asphalt and is responsible for the removal as specified herein. The Contractor is responsible for furnishing all labor, equipment and materials necessary to complete this work. All work shall be performed in accordance with the contract documents and specifications governing this project.

1.03 QUALITY ASSURANCE:

The Contractor shall be responsible to ensure a positive flow of storm water runoff from all streets after resurfacing. **The Engineer or his designee shall provide stormwater maps and assistance in the field to designate the flow of stormwater as it pertains to the City's drainage system.** . Damage caused to the curb and gutter during asphalt removal operations shall be removed and replaced at no additional cost to the City.

PART 2 - PRODUCTS

Not Applicable

PART 3 - EXECUTION

3.01 REMOVAL OF EXISTING ASPHALT OVERLAY GUTTER PAN:

- A. Remove asphalt concrete overlay by using manual or mechanical equipment. To preventing damage to the curb and gutter, the use of a self-propelled milling machine is **NOT acceptable** as mechanical equipment. This asphalt concrete shall **NOT** be reclaimed. Disposal of material is the responsibility of the Contractor.
- B. Clean residual tack from gutter pan.
- C. If gutter pan is found to be in extreme deteriorated condition, it shall be removed and replaced at the direction of the Engineer.

END OF SECTION 2.5

SECTION 2.7 - ASPHALT CONCRETE PAVING

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

Drawings and general provisions of Contract, including General Conditions and Division 1 Specifications, apply to work of this section.

1.02 DESCRIPTION OF WORK

Extent of asphalt concrete paving work is limited to patching existing asphalt concrete pavement. Unless otherwise noted, all materials and quality of construction to be used for the patching of small areas shall be in accordance with VDOT Specification Section 212.

Asphalt concrete shall conform to the requirements for the type designated (SM-9.5A) in accordance with VDOT Specification Section 246, and VDOT Specification Section 212.

1.03 SUBMITTALS

The contractor shall be responsible for all costs of required testing and verification of Job Mix Formula(s). All acceptance of, and adjustment to, the test data and job mix formula(s) shall be the responsibility of the Engineer.

1. Job Mix Formula: According to VDOT Specification Section 211.03 for SM-9.5A for the mixture supplied.

2. Marshall Design Test Data: SM-9.5A according to VDOT Specification Section. 211.03 (d).

The contractor shall submit specifications of alternative materials to verify conformance with the contract documents and specifications. The Engineer, prior to installation, shall approve the submittals.

1.04 QUALITY ASSURANCE

A. The City of Norfolk will conduct a quality assurance program. A quality assurance program is defined as all activities, including inspection, unassigned sampling and testing by the City that are related to determining that the quality of the completed pavement conforms to specification and requirements. Bulk density testing of the asphalt pavement shall be the responsibility of the City inspector using a Non-Nuclear Density Gage. Documentation of density tests shall be recorded on forms provided by the City. Frequency of tests shall be performed on a random/as-needed basis, as directed by the Engineer.

1.05 SITE CONDITIONS

- A. **Weather Limitations:** Apply tack coat when ambient temperature is above 50° F, and when temperature has not been below 35° F for 12 hours immediately prior to application. Do not apply when base is wet or contains an excess of moisture.
- B. Asphalt Concrete Pavement shall not be produced or placed during rainy weather, when the subgrade or base course is frozen, or when the moisture on the surface to be paved would prevent proper bond. Asphalt material shall not be placed when the air temperature measured in the shade away from artificial heat at the location of the paving operations, is less than 40° F.
- C. **Time Limitations After Milling:** All areas within and adjacent to milling operations shall be cleaned and “ready to pave” the same day as the milling operation. Actual resurfacing shall take place within **seven (7) calendar days** of the milling operation. Any location that has not been paved within the specified time limit, shall be paved at an asphalt cost reduced by 5% of the base bid per day up to 50% reduction.
- D. All grade lines and elevations shall be established and maintained.

PART 2 - PRODUCTS

2.01 ASPHALT CONCRETE

- A. All joint materials shall be in accordance with the testing requirements of VDOT Specification Section 212.
- B. Mineral filler shall be in accordance with VDOT Specification Section 201.
- C. Asphalt Cement in accordance with VDOT Specification Section 211, with type and grade as indicated for individual mixes.
- D. Prime Coat: No asphaltic primer shall be used. Wet prime only, as directed by the Engineer.
- E. Tack Coat in accordance with the emulsion provisions of VDOT Specification Section 210.
- E. Surface course SM-9.5A in accordance VDOT Specification Section 212.
- F. Herbicide: Shall be one of the following, or equivalent as approved by the Engineer:
 - 1. Pramitol-25E as manufactured by CIBA-GEIGY Corporation.
 - 2. Roundup as manufactured by Monsanto Corporation.

PART 3 – EXECUTION

3.01 PATCH CUT PREPARATIONS

- A.** Cuts shall be made perpendicular to the curb line or parallel with the street centerline in accordance with the City's Right of Way Excavation & Restoration Manual.
- B.** Sawcutting shall be performed in accordance with VDOT Specification Section 315. Cuts shall be free of spalls or damaged edges
- C.** Cut shall be excavated to depth specified.
- D.** Backfill cut with VDOT 21A specified in VDOT Specification Section 208.

3.02 PLACING ASPHALT CONCRETE OVERLAY

- A.** Thoroughly clean contact surfaces and apply tack coat.
 - 1. The asphalt mixture shall be spread by a self-contained, power propelled paver and finished to the required grades, cross sections, thicknesses, and widths.
 - a. The paver shall be equipped and operated with a fully activated screed plate, which is designed to be preheated for the full length. The screed shall be of adequate length to spread and finish the full uniform width travel lane being placed. The use of strike off devices, either mechanically or manually operated will not be permitted in spreading and finishing the mixture in the uniform width travel lane. The screed shall be equipped with a sliding shoe attachment, which will for a slope on the edge of the mat to prevent edge raveling when the mixture is compacted.
 - b. The paver shall be equipped with a receiving hopper and an automatically controlled distribution system, which is capable of uniformly maintaining a proper head of material in front of the full length of the screed including screed extensions.
 - c. The requirement for use of pavers for spreading and finishing shall be waived where irregularities or obstacles make their use impractical. The Contractor shall spread, rake, and lute the mixture by hand method in these areas.
- B.** The minimum lay down temperature of the asphalt shall be in accordance with VDOT Specification Section 315 Table III-2.

3.03 COMPACTION OF MAT

- A.** Immediately after the asphalt mixture has been spread, struck off, and surface and edge irregularities adjusted, it shall be thoroughly and uniformly compacted. The degree of compaction required shall be in accordance with the applicable section of the specifications for the type of mixture being placed. Begin rolling when mixture will bear roller weight without excessive displacement. Compact mixture with hot hand tampers or vibrating plate compactors in areas inaccessible to rollers.

- B. Breakdown and Intermediate Rolling: Accomplish breakdown or initial rolling immediately following rolling of joints and outside edge. Check surface after breakdown rolling and repair displaced areas by loosening and filling, if required, with hot material. Breakdown and intermediate rolling shall be completed prior to the mixture cooling below a temperature of 185° F.
- C. Finish Rolling: Perform finish rolling while mixture is still warm enough for removal of roller marks. Continue rolling until roller marks are eliminated and course has attained maximum density and smoothness.
- D. Protection: After final rolling, do not permit vehicular traffic on pavement until it has cooled and hardened.

3.04 FIELD QUALITY CONTROL

- A. Test in-place asphalt concrete courses for compliance with requirements for thickness and surface smoothness. The Contractor shall remove and replace with new material areas deemed unacceptable at no additional cost to the City of Norfolk.
- B. **Thickness:** In-place compacted thickness will not be acceptable if exceeding the maximum allowable variation of +/- 1/4".

3.05 CLEAN UP

The newly overlaid pavement shall be thoroughly cleaned by power broom immediately behind the restoration operations.

END OF SECTION

SECTION 2.8 - CONCRETE WORK

2.8-1 RELATED DOCUMENTS

Drawings and general provisions of Contract, including General and Supplementary Conditions and Division-1 Specification sections, apply to work of this section.

2.8-2 SUMMARY

Extent of concrete work is to include curb and gutter, sidewalk, curb cut ramps, aprons, valley gutters and pavement. Concrete work shall conform to the requirements of VDOT SECS. 217, 404, 502, and 504. All concrete in the right of way shall be class "A-3" air entrained (3000 psi) unless otherwise specified.

2.8-3 SUBMITTALS

- A. Product Data: Submit data for proprietary materials and items, including forming accessories, admixtures, patching compounds, joint systems, curing compounds, and others as requested by the Engineer.
- B. Laboratory Test Reports: Submit laboratory test reports for concrete materials and mix design test.

2.8-4 QUALITY ASSURANCE

- A. Codes and Standards: Comply with provisions of following codes, specifications and standards, except where more stringent requirements are shown or specified:

Virginia Department of Transportation, "Road and Bridge Specifications", January 2002 Edition (known hereinafter as VDOT), and City of Norfolk Standards.
- B. Concrete Testing Service: Engage a testing laboratory acceptable to the Engineer to perform material evaluation tests and to design concrete mixes.

2.8-5 PROJECT CONDITIONS

- A. Protect adjacent areas against spatter during concrete placement.
- A. Place barricades as necessary to prohibit pedestrian and vehicular access until concrete has cured.

2.8-6 MATERIALS

- A. Hydraulic cement concrete shall conform to the requirements of VDOT Sec. 217 & 502.02.

1. HYDRAULIC CEMENT CONCRETE - Concrete for PAVEMENT PATCH and VALLEY GUTTER shall be in accordance with CAPITAL CONCRETE MIX DESIGNATION: ALL PORTLAND/HRWR/AE, #4, or an approved equal as follows:

Portland	705
Sika Aer	3.25
Plast.161	21.1
Sikament 86 (HRWR)	56.4
Sand	1090
Gravel	1850
Water	30.5
W/C Ratio	0.36
Slump Prior HRWR	2" – 3"
Slump After HRWR	6" – 8"
AER	5
7 Day Test Result	5840
28 Day Test Result	7300

- B. Curing materials shall conform to the requirements of VDOT Sec. 220 & 316.04.
- C. Admixtures shall conform to the requirements of VDOT Sec. 215.
- D. Joint material shall conform to the requirements of VDOT Sec. 212.
- E. Forms shall conform to the requirements of VDOT 502.03 & 316.04.
- F. Water shall be potable (suitable for drinking).
- G. Portland Cement: Shall conform to AASHTO M85 TYPE II for Class-A3 as set forth in VDOT Section 216.
- H. Concrete mixture for all concrete surfaces shall be from the same supplier: cement shall be from one source or mill. Mixture and color shall be approved the Engineer.
- I. Normal Weight, Coarse & Fine Aggregates: Shall conform to VDOT Sec.219 and ASTM C 33, and as herein specified. Provide aggregates from a single source for exposed concrete.
- J. Local aggregates not complying with ASTM C 33 but which have shown by special test or actual service to produce concrete of adequate strength and durability may be used when acceptable to the Engineer.

- K. **DOWELS** shall be non-deformed steel in conformance with Virginia Department of Transportation Section 228, grade 40, for plain bar re-inforcement.

2.8-7 RELATED MATERIALS

- A. Liquid Membrane-Forming Curing Compound: Liquid type membrane-forming curing compound complying with ASTM C309, Type I, Class A. Moisture loss at 24 hrs. not more than 0.055 gr./sq.cm. of exposed surface when applied at 200 sq.ft./gal. Clear compound shall be used.
- B. Bonding Compound: Polyvinyl acetate or acrylic base.
- C. Epoxy Adhesive: ASTM C 881, two component material suitable for use on dry or damp surfaces. Provide material "Type", "Grade", and "Class" to suit project requirements.

CONCRETE ROAD PATCH (TYPE II & III REPAIRS)

- A. The existing concrete roadway is to be drilled to accept dowels, as shown on the attached detail. Debris is to be removed from the trench prior to placement of the concrete. Dowels located along the longitudinal edge of the patch are to be epoxied in place in the existing concrete. Dowels located along the transverse joint are to be lubricated in the existing concrete. Bonding agent is to be applied to the existing concrete edges and allowed proper cure time prior to placement. Concrete is to be placed in accordance with VDOT Section 321.
- B. The surface is to be screeded even to finish grade, (existing pavement grade for Type II repair, or 2" below finished asphalt grade for Type III repairs) troweled, and shall receive a steel leaf rake broom finish, with grooves cut 1/4" deep, +/- 1/8". Grooves shall be cut perpendicular to the traffic flow (Type II repairs).
- C. The concrete pavement shall be protected from defacement while initial cure occurs, and then protected from vehicular traffic until adequate strength has been attained. Any concrete which has been defaced shall be replaced by the contractor without additional cost to the City.

2.8-8 PROPORTIONING AND DESIGN OF MIXES

- A. Prepare design mixes for each type and strength of concrete by either laboratory trial batch or field experience methods as specified in ACI 301. If trial batch method is used, employ an independent testing facility acceptable to the Engineer for preparing and reporting proposed mix designs. The testing facility shall not be the same as used for field quality control testing.
- B. Submit written reports to the Engineer of each proposed mix for each class of concrete at least 15 days prior to start of work. Do not begin concrete production until mixes have been reviewed by the Engineer.
- C. Design mixes to provide Type A3 Concrete in accordance with the provisions of VDOT

Section 217.07.

- D. Ready mixed concrete shall conform to all requirements of VDOT section 217.09(b); and shall be mixed concrete delivered to the designated point ready for use. The ready-mix plant shall be approved prior to use and in the event satisfactory quality is not produced, such approval will be withdrawn.
- E. Adjustment to Concrete Mixes: Mix design adjustments may be requested by Contractor when characteristics of materials, job conditions, weather, test results, or other circumstances warrant; at no additional cost to City and as accepted by the Engineer. Laboratory test data for revised mix design and strength results must be submitted to and accepted by the Engineer before using in work.

2.8-9 GENERAL

- A. Coordinate the installation of joint materials and vapor retarders with placement of forms and reinforcing steel.
- B. Herbicide shall be used on prepared surface before any stone or concrete placement, in accordance with VDOT Section 257.01.

2.8-10 FORMS

- A. Forms shall be straight, free from warp and of sufficient strength to resist the pressure of concrete without springing and shall extend the full depth of the concrete. Forms shall be braced so that they will remain in horizontal and vertical alignment until their removal. Where practical, forms shall be placed at least 100 ft. in advance of concrete placement. Forms shall be cleaned of foreign matter and oiled before concrete is placed. Maintain form work construction tolerances complying with ACI 347.
- B. Design form work to be readily removable without impact, shock, or damage to cast-in-place concrete surfaces and adjacent materials.
- C. Construct forms to sizes, shapes, lines, and dimensions shown, and to obtain accurate alignment, location, grades, level and plumb work in all finished structures.
- D. Slip form pavers shall be designed to consolidate, screed and float finish the freshly placed concrete in one complete pass of the machine and in a manner so that a minimum of hand finishing will be necessary to provide a dense and homogenous section. The paver shall be equipped to vibrate the concrete thoroughly for the full width and depth of the section.
- E. Forms shall not be removed from freshly placed concrete until it has set for at least 12 hrs. or at 30 minutes for the face forms of curbs. Forms shall be removed carefully to avoid damage. Major honeycombed areas will be considered defective work and shall be removed and replaced.

2.8-11 JOINTS

- A. Construction Joints: Locate and install construction joints as indicated or, if not indicated, locate so as not to impair strength and appearance of the structure, as acceptable to the Engineer.
Joints shall be formed around all drainage structure using preformed joint filler, 1/4 inch thick.
- B. Expansion joints: Preformed joint filler shall be placed between concrete sidewalks and any fixed structure. Where sidewalk is constructed in conjunction with adjacent curb, the expansion joints shall, if practicable, coincide.
- C. Transverse expansion joints shall be constructed at intervals of approximately 100 feet, except for closures. Slabs shall be separated by preformed joint filler 1/2 inch thick, extending from the bottom of the slab to approximately 1/4 inch below the top of the surface.
- D. All preformed joint filler shall be securely fastened to prevent displacement.

2.8-12 CONCRETE PLACEMENT

- A. Pre-placement Inspection: Before placing concrete, inspect and complete form work installation, reinforcing steel, and items to be embedded or cast-in. Moisten wood forms immediately before placing concrete where form coatings are not used.
- B. Comply with ACI 304 "Recommended Practice for Measuring, Mixing, Transporting, and Placing Concrete", and as herein specified.
- C. Deposit concrete continuously or in layers of such thickness that no concrete will be placed on concrete which has hardened sufficiently to cause the formation of seams or planes of weakness. If a section cannot be placed continuously, provide construction joints as herein specified. Deposit concrete as nearly as practicable to its final location to avoid segregation.
- D. Deposit concrete in forms in horizontal layers in conformance with VDOT SEC. 316.04(e) and in a manner to avoid inclined construction joints. Where placement consists of several layers, place each layer while preceding layer is still plastic to avoid cold joints.
- E. Consolidate placed concrete by mechanical vibrating equipment supplemented by hand-spading, rodding, or tamping. Use equipment and procedures for consolidation of concrete in accordance with ACI 309.
- F. Do not use vibrators to transport concrete inside forms. Insert and withdraw vibrators vertically at uniformly spaced locations not farther than visible effectiveness of machine. Place vibrators to rapidly penetrate placed layer and at least 6" into preceding layer. Do not insert vibrators into lower layers of concrete that have begun to set. At each insertion limit duration of vibration to time necessary to consolidate concrete and complete

embedment of reinforcement and other embedded items without causing segregation of mix.

- G. Deposit and consolidate concrete aprons in a continuous operation, within limits of construction joints, until the placing of a panel or section is completed. Aprons shall be placed as shown on plans: 6 in. residential; 8 in. commercial depth.
- H. Concrete sidewalks shall conform to VDOT Specifications Section 504. Pre-molded 1/2 in. transverse expansion joints shall be installed at all intersections and at maximum intervals of one hundred (100) feet except for closures. Surface of walks shall be wood floated finish free of irregularities and have a medium broom finish. Concrete walks shall be (4) inches thick, except for the area which coincides with driveway aprons, which shall match the apron thickness. The slope and joints of the sidewalk will be carried through all driveway aprons except where the sidewalk has been poured to the back of the curb. Transverse control joints shall be formed in 5 ft. sections and align with the 10 ft. curb sections, except where 4ft. x 4ft. sidewalk panels are installed.
- I. Concrete curb cut ramps shall be placed as shown on plan. Pour special mix for exposed aggregate. Superscreed surface and treat with retarder. Allow to set up, then pressure wash surface, remove cream and expose aggregate. Caution should be used to prevent spatter during wash process.
- J. Concrete Curbs & Gutter may be slip-formed or formed in place. Curb and gutter shall be constructed in uniform lengths of approximately 10 ft. as necessary to form closures. Expansion joints shall be formed at intervals of approximately 100 ft. using 5/8 in. preformed bituminous fiber joint filler. No section shall be less than 6 ft. Expansion joints in the curb and sidewalk shall match.
- K. Consolidate concrete during placing operations so that concrete is thoroughly worked around reinforcement and other embedded items and into corners.
- L. Bring surfaces to correct level with straightedge and strike off. Use bull floats or darbies to smooth surface, free of humps or hollows. Do not disturb surfaces prior to beginning finishing operations.
- M. Maintain reinforcing in proper position during concrete placement operations.

2.8-13 FINAL ACCEPTANCE

- A. At the time of final inspection, any cracks or damage to concrete items will be addressed in the following manner before the concrete work will be accepted:
 - 1. Curb: Replacement will be in ten (10) foot sections, joint to joint.
 - 2. Sidewalks: The entire section will be replaced.
 - 3. Driveway aprons: Entire apron to be replaced from curb line to property line.
- B. Patching of concrete may be accepted for the above referenced items at the discretion of

the Engineer.

2.8-14 PROJECT DOCUMENTATION

A. As each pavement patch is completed and opened for traffic, the Contractor shall submit a completed work card to the Engineer.

B. ***PERMANENT PATCHES WHICH HAVE SETTLED/FAILED WITH A VERTICAL DISPLACEMENT OF ½ INCH OR GREATER WITHIN TWO YEARS OF INSTALLATION, WILL BE REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE CITY.***

END OF SECTION 2.8

SECTION 2.9 - UTILITIES

PART 1 – GENERAL

1.01 UTILITIES

- A. Within the limits of this project there are existing above ground and underground utilities. It shall be the responsibility of the Contractor to determine the location and to carry out his work carefully and skillfully, so as to avoid damage to them. Test pits, where necessary to locate existing underground facilities, will be at the sole expense of the Contractor, unless otherwise indicated.
- B. Where existing public utilities are located within the contract limits, the Contractor will be required to give the proper agencies of the City and the various owning companies at least 48 hours notice before doing any work within the vicinity of the utility. The contractor shall also obtain from said agencies and companies the exact location of utility lines.
- C. The Contractor will not be permitted to shut off any water mains or sewer force mains but shall request the City to do so if needed.
- D. The cost of all work connected with the maintaining, protecting and disposing of all utilities which will be affected by the work under this contract shall be included in the representative bid for the related items in the Contract and no other compensation will be allowed.
- E. The Contractor shall coordinate his operations with the planned utility adjustments and take all necessary precautions to prevent disturbance to the utility facilities. The Contractor shall report to the City any failure on the part of the utility owner to cooperate or proceed with the planned utility adjustments.
- F. Any existing, adjusted or new utility facilities which are to remain within the right-of-way shall be properly protected by the Contractor to prevent disturbance or damage resulting from construction operations. In the event an existing utility is encountered by the Contractor which requires adjustment, the Contractor shall not interfere with said utility, but shall take the proper precautions to protect the facility and promptly notify the Owner. If the City desires the Contractor to adjust this facility he will do so and shall be compensated for the work involved in this adjustment in accordance with these documents under "Extra Work".
- G. The Contractor shall contact all known utility owners prior to the preparation of his bid to determine the nature, extent and location of all existing, adjusted or new utility facilities and shall reflect any additional cost in his unit price bid for other items of the contract.
- H. Should the Contractor desire the temporary or permanent adjustment of utilities for his own benefit, he shall conduct all negotiations with the utility owners and pay all costs associated with such adjustment.

- I. Notify “*Miss Utility of Virginia*” 811 or 1-800-552-7001, to locate utilities before beginning any work.

END OF SECTION

SECTION 2.10 - LANDSCAPING

PART 1 - GENERAL

2.10-1 SCOPE

Shall include all labor, materials, equipment and services necessary to completely furnish, install, maintain and guarantee all seeding and seeding items in accordance with the contract documents and specifications. These particular seeding specifications are to be use for seeding verges, tree belts, medians and parkways, as well as school yards and public building areas. It is the intent of these specifications to ensure that the contractor is responsible for all phases of seeding as specified, until the final acceptance. Dependent upon the season, the contractor may have to provide a winter or summer cover crop that will eventually be incorporated into the soil prior to seeding in the appropriate spring and fall seasons.

2.10-2 RELATED DOCUMENTS

Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division I Specification Section, apply to this section.

2.10-3 SUMMARY

A. This section includes provisions for the following items:

1. Scope
2. Submittals
3. Materials
4. Delivery, storage & handling
5. Project Conditions
6. Execution
7. Cleanup
8. Maintenance
9. Inspection & acceptance
10. Warranty period
11. Final inspection

B. Related Sections: (*see Earthwork*)

1. Excavation
2. Filling
3. Rough grading

2.10-4 QUALITY ASSURANCE

A. Source Quality Control:

1. Comply with regulations applicable to landscape materials.
2. Substitutions may be made with approval of Engineer, and the City Forester.
 - a. Submit proof of non-availability
 - b. Submit proposal for equivalent material
3. Submit analysis and standards for all materials: from manufacturer or recognized laboratory.

2.10-5 SUBMITTALS

A. Plant and Material Certifications:

1. Manufacturers or vendors certified analysis for soil amendments and fertilizer materials.
2. Label data substantiating that plants and planting materials comply with specified requirements.
3. Seed vendor's certified statement for each grass seed mixture required, stating botanical and common name, percentages by weight, and percentages of purity, germination, and weed seed for each grass seed species.

B. SUBMIT THE FOLLOWING TEST REPORTS TO THE CONSTRUCTION ENGINEER AND THE CITY FORESTER:

1. Soils analysis of topsoil to be used for landscaping showing the following:
 - a. pH factor
 - b. Mechanical analysis
 - c. Percentage of organic content
 - d. Schedule to adjust pH if necessary.

C. Well in advance of the dates scheduled for seeding operations, the contractor shall have samples of all topsoil to be used on the project tested to determine the proper basis for the application of lime and fertilizer. Representative samples shall be taken for all existing topsoil and separate samples for each separate source of new topsoil to be brought into the job site.

D. One copy of the soil sample analysis report shall be submitted to the Department of Parks and Forestry prior to seeding operations. Lime, fertilizer requirements, phosphorus, potassium, calcium, magnesium and pH levels shall be tested for each sample and amendment recommendations provided in the soil analysis.

2.10-6 JOB CONDITIONS

- A. Utilities: Locate underground utilities and avoid damage to same. Hand excavation may be required.
- B. Maintain all grade stakes until completion of project.
- C. When conditions detrimental to plant or grass growth are encountered, such as rubble fill, adverse drainage conditions or obstructions, notify Engineer before planting. Excavation and regrading may be required.
- D. Where areas have been disturbed for storage purposes, the contractor will be required to restore the area to its original condition.

2.10-7 SEQUENCING AND SCHEDULING

- A. Proceed with and complete landscape work as rapidly as portions of the site become available, working within seasonal limitations for each type of landscape work required.
- B. Conform to normal planting seasons for each type of plant material required.

PART 2 - PRODUCTS

2.10-8 TOP SOIL

Top Soil shall be a natural, fertile, friable soil obtained from naturally well drained areas. It shall not be excessively acid or alkaline, nor contained substances which may be harmful to plant growth. Top soil shall be without admixture of subsoil and shall be cleaned and free from clay, lumps, stones, roots, or similar substances two inches or more in diameter, debris, or other objects which might be a hindrance to seeding operations. Top soil shall contain at least 6% organic matter and have an acidic reaction between 6 and 7.0 pH - inclusive. Provide certificate of soil test analysis from a soil testing laboratory endorsed by the Association of official Agricultural Chemists showing compliance to the specification prior to spreading at the site. Obtain topsoil from local sources or from areas have similar soil characteristics to that found of the project site. Obtain topsoil only from naturally, well drain sites where topsoil occurs in a depth of not less than 4 inches. Do not obtain from bogs or marshes.

2.10-9 LIMESTONE

Limestone shall be pelletized agricultural grade. Calcareous limestone shall contain at least 50% magnesium oxide and dolomitic limestone shall contain at least 40% magnesium oxide. The limestone shall contain a carbonate total of at least 85%. Burned or slakes limestone is not permitted.

2.10-10 WATER

The Contractor shall be responsible for furnishing potable water (free from oil, acid alkali, salt and other substances harmful to Seed germination), and all other related equipment, i.e. hoses, sprinklers, tanks, etc.

2.10-11 ALUMINUM

Shall be an unadulterated commercial grade material delivered in containers with material delivered in container with the name of the material and the manufacturer.

2.10-12 SEED

State-Certified Seed of the latest season's crop with a minimum 80% germination rate. Mix Seed on site or in the presence of the Parks and Recreation representative. Weed seeds and inert matter shall not exceed 0.25% (one fourth of one percent) of total seed content. Seed should be free of the noxious weeds.

Time of Seeding	Type and % by Weight	Purity	Seeding
Sept.15-Nov. 15	100% tall turf type fescue from list provided below.	80%	7-8 lbs/1000 sq. ft.
Nov.15-March 15	100% Annual Rye	80%	10/12/lbs./ 1,000 sq.ft.
March 15-May 30	20% Annual Rye; 80% tall turf type fescue	80%	8 lbs./1,000 sq. ft.
June 1-Sept.15	100% Common or German Miller	80%	2 lbs./1,000 sq ft.

ACCEPTABLE TALL TURF FESCUE VARIETIES:

1. Amigo
2. Apache
3. Rebel II
4. Shenandoah
5. Tribute

2.10-13 FERTILIZER

Commercial grade, dry free flowing, uniform in composition, and shall be delivered to the site in the original, unopened containers, each bearing the manufacturers guaranteed analysis. Any fertilizer which becomes caked or otherwise damaged, making it unsuitable for use, will not be accepted. Fertilizer shall be granular 13-25-12 formulated (13% nitrogen, 25% P₂O₅, and 12% k₂O). No cyanamide or hydrated lime permitted in mixed fertilizer.

2.10-14 MULCH

Mulch should be free from noxious weeds, molds, or other deleterious material. Mulch/straw should be cured and mulched from the stalks of oats, wheat, barley, or rice. Furnish in air-dry condition and of proper consistency. Do not use rye straw.

2.10-15 DELIVER, STORAGE, AND HANDLING

- A. *Fertilizer/lime.* Deliver materials to the site in the original, unopened containers bearing the manufacturer's chemical analysis, name, trade name and indication of conformance with state and Federal laws. In lieu of containers, bulk fertilizer and lime can be used only if appropriate certificates accompany each delivery.
- B. *Seed.* Deliver Seed to the site in original sealed packages bearing the producer's guaranteed analysis for percentages of mixtures, purity, germination, weed Seed content, and inert material. Labels shall be in conformance with USDA Federal Seed Act 53 State Rules and Regulations and applicable state laws. Wet, moldy, outdated, or otherwise damaged Seed will be rejected.
- C. *Storage and handling.* Store lime, fertilizer, and Seed in dry locations away from contaminants. Protect seed from drying out. When handling materials, do not drop or dump from vehicles. There will be no on-site storage of materials.

2.10-16 PROJECT CONDITIONS

Determine the location of underground utilities and perform work in a manner which will avoid possible damage. Hand excavate, as required. Maintain grade stakes set by other until removal is mutually agreed upon by the project inspector. When conditions detrimental to turf establishment are encountered, such as rubble, poor drainage, etc. excavation and regrading may be required.

Where areas have been disturbed for storage purposes, the Contractor will be required to restore the area to the original condition.

PART 3 - EXECUTION

2.10-17 SEEDING

A winter and summer annual species will be seeded and maintained by the contractor until the next appropriate growing season arrives. Projects that must be seeded in the winter will be seeded with 100% annual rye. The following spring the rye will be eradicated by tilling, and regrading the site. Seed the spring seed mix as specified in the table below. For projects that must be seeded in the summer, 100% German Millet will be seeded and maintained until the following fall. At that time the German Millet must be tilled into the soil and the area regraded. The fall seed mix must then be installed and maintained until acceptance. Therefore, the contractor is responsible for the sequence below:

Seeding Time:

September 15-November 15	100% tall turf type fescue
November 15-March 15	100% annual rye
March 15-May 30	20% annual rye 80% tall turf type fescue
June 1-September 15	100% Common or German Millet

2.10-18 GRADING

After areas required to be seeded have been brought to the required grade, thoroughly till to a minimum depth of 4 inches by scarifying, disking, harrowing, or to their approved method. Remove all debris and stores larger than one inch remaining on the surface after tilling. Tilling will be necessary prior to seeding as well as when the summer or winter species must be eradicated.

2.10-19 TOPSOIL

All lawn area (medians, tree belts, all disturbed areas) area to have topsoil uniformly distributed and evenly spread to an average thickness of 4 inches and not less than 3 inches.

2.10-20 LIME

Apply the rate and amount of lime necessary to maintain the lawn areas at a pH level of 5 to 6.5. Soil analysis report of existing conditions and pH level will designate the amount of lime necessary to bring soil to the acceptable level.

2.10-21 FINE GRADING

Fine grade seed areas to smooth, even surface with loose, uniformly fine texture. Roll, rake, and drag lawn areas, remove ridges and fill depressions, as required to meet finish grades. Moisten prepared lawn areas before planting if soil is dry. Water thoroughly and allow surface moisture to dry before planting seed. Do not create a muddy soil condition.

2.10-22 FERTILIZER

Apply fertilizer at a uniform rate of 10 pounds per 1,000 square feet. Incorporate fertilizer and lime into the soil to a depth of at least 4 inches; this may be done as part of the subgrade tillage operation as specified herein.

2.10-23 SEEDING, SEEDING METHOD, SOWING

Mix seed on-site or in the presence of the Parks and Recreation representative. Sow seed with approved sowing equipment using the following method at the rates specified under seed on page 3. Sow one-half the seed in one direction and sow remainder at right angles to the first sowing. Cover seed by means of spiketooth harrow, cultipacker, or other approved device. Do not hyroseed unless specifications permit.

2.10-24 ROLLING

Immediately after Seeding, firm entire area with a roller.

2.10-25 MULCH

Newly Seeded lawn areas shall be mulched immediately following Seeding. Chopped straw shall be evenly applied so as to provide a loose depth of not more than one (1/2) inch (75% coverage).

2.10-26 PRECAUTIONS

Take all precautionary measures to prevent materials from marking or defacing structures, pavement, planting or trees. Contractor will be held responsible for any/all damages. If any work is to be accomplished within the dripline of existing trees a tree permit will be necessary prior to the start of the project. Extreme caution must be given when tilling, liming, and fertilizing in the dripline of existing trees.

2.10-27 CLEANUP AND PROTECTION

During Seeding operation, keep pavements clean and work areas in an orderly condition. Excess soil and other materials to be swept up routinely. Protect existing landscaping as required under the City of Norfolk Arboricultural Specifications and Standards of Practice.

2.10-28 MAINTENANCE

- A. Begin maintenance immediately after seeding.
- B. Maintenance shall include, but not be limited to proper watering, refilling of rainwashed gullies and rutted area, refertilizing, mowing, liming, disease and insect pest control, aerating, protective spraying, and any other procedure consistent with good horticultural practice necessary to established normal, vigorous, healthy lawns.

- C. Mowing height must be at 2 1/2". Mowing by the contractor must be accomplished prior to the grass attaining a height of 3 1/2".
- D. Ample soil moisture must be maintained during this period. A thorough watering to a minimum depth of 4" once ever 3-5 days, depending upon soil type and drainage should be accomplished to maintain ample soil moisture during the growing season.
- E. The Contractor shall maintain all Seeded areas until final acceptance of the project and shall restore or replace any portion of the Seeding work that is found defective or which becomes damaged prior to final acceptance. Depending on the time of year, winter cover crops and summer cover crops must be planted and maintained until spring or fall seeding schedules can be met. The contractor will be responsible for planting, maintaining the cover crop, eradicating the cover crop by tilling and grading prior to spring or fall seeding seasons, and replanting the project based on the spring or fall planting selections whichever comes first. The Contractor shall perform supplemental Seeding when less than 90% uniform stand of permanent grass is obtained. Restoration or replacement work shall included the re-reestablishment of the grade or profile of the area, replacement of topsoil, refertilization, reseeding or remulching as directed by the Director of Parks and Recreation. Maintenance must be performed by the contractor until the final acceptance of the spring or fall season grass is accomplished. There is no time limit in force.

2.10-29 INSPECTION AND ACCEPTANCE

- A. In the event a summer or winter cover crop is required, an inspection will take place to ensure that the cover crop has provided a 90% uniform stand of cover. Following the maintenance of the cover, eradication by tilling, and reseeding based on the season, a substantial inspection will be accomplished by a representative of the Department of Parks and Recreation. If a cover crop is not necessary, a substantial inspection can be performed by a Parks and Recreation representative once the permanent seeding has germinated and provided a 90% uniform stand of grass. In the event that discrepancies are noted, the Contractor must remedy the discrepancies submitted to him in written form by the Department of Parks and Recreation as well as continue to maintain the turf area.
- B. Once all corrections are complete, another inspection will be conducted by the Department of Parks and Recreation. Upon successful completing of the Seeding project, the Contractor will be notified in writing as to the beginning date for the warranty period to include a 60 day maintenance period.

2.10-30 WARRANTY PERIOD

- A. For seeded areas, a warranty period of no less than 60 days is required after a substantial completing notice has been issued. If the project was seeded in the fall and not given full 60 days of maintenance, or if the project seeding is not considered acceptable at the time, the contractor will continue maintenance until the following spring once acceptable turf is established.
- B. The Contractor must maintain the Seeded areas until a final acceptance inspection has been completed and a Certificate of Acceptance is issued.

2.10-31 FINAL ACCEPTANCE

- A. Following the 60-day warranty/maintenance period, a final inspection will be conducted by the Department of Parks and Recreation. Upon successful completion, a written notice of acceptance will be sent to the Contractor from the Department of Parks and Recreation. At that time, the City of Norfolk will begin maintenance of the seeded areas.

END OF SECTION 2.10

SECTION 2.11 – PAVEMENT MARKINGS

2.11-1 TYPES

All pavement markings, stripings, and snow plowable pavement markers shall be installed in accordance with Section 704 of the VDOT Specs. Pavement markings and striping shall consist of the following types of items.

- 4" White Lines (straight, skip, and mini-skip)
- 4" Yellow Lines (straight, skip, and mini-skip)
- 12" White Lines
- 24" White Lines
- 24" Yellow Lines
- Arrows (turn or combination turn)
- "Only" Legend
- "School" Legend
- "RxR" Legend
- "Sharrow" Legend
- Snow Plowable One Way & Two Way Markers
- Through arrows are only to be used as directed by the Engineer.
- Paint Markings
- 4" White Contract Tape Markings

2.11-2 RESTORATION AFTER RESURFACING

1. At least two weeks prior to a roadway being resurfaced, the existing pavement marking pattern will be reviewed in the field with the Contractor and the inspector. The Contractor shall be responsible for making adequate records of the existing pattern so that the pattern will be properly reinstated after the new pavement has cured. Any corrective actions necessary due to failure of the contractor to reinstate the markings to true form will be performed at no additional cost to the City. If the City requests any deviations in the new striping pattern from the old, such request will be fully documented, with sketches and or details provided.
2. At the time of review of the street to be resurfaced, additional areas of striping for maintenance outside the limits of resurfacing may be identified. These additional areas will not exceed 150 centerline feet down anyone leg of the affected intersection.
3. When striping roadways for restoration after resurfacing, the new pavement shall be allowed to cure for a minimum of 48 hours prior to striping, but shall have the centerline and lane lines fully striped within 5 days.
4. Restoration for Resurfacing shall be fully accomplished within 14 calendar days after the 48 hour cure time has elapsed. This does not preclude the above requirement for the establishment of the centerline within 5 calendar days. An additional 7 calendar days will be granted in the event that additional maintenance striping is identified.

5. Snow plowable pavement markers. The Contractor shall be allowed an additional 14 calendar days for the installation of snow plowable pavement markers, where directed by the Engineer, after the striping work has been completed.

2.11-3 MAINTENANCE/NEW STRIPING

The City will provide a list of locations where the streets are to be restriped for maintenance through the issuance of a work order. The list may consist any of the items shown in the schedule of unit prices.

The City shall provide the Contractor the priority for the work for any one work order.

Markings shall be renewed in kind and location as existing after being eradicated if necessary.

In the event the City requests any deviations in the new striping pattern from the old, such request will be fully documented, with sketches and/or details provided.

2.11-4 THERMOMPLASTIC

Materials shall conform to Section 246 of the Virginia Department of Transportation Road and Bridge Specifications, 2002, (hereinafter referred to as VDOT Specs) for thermoplastic (Type B, Class I for both asphalt and concrete) pavement applications. All materials used shall be lead free.

2.11-5 GLASS BEADS

Materials shall conform to Section 234 of the VDOT Specs.

2.11-6 PAVEMENT MARKING PATTERNED PERFORMED TAPE

Material shall conform to Section 246 of VDOT Specs for pavement marking tape, Type B, Class VI, Contrast for concrete pavement applications.

2.11-7 PAINT

Material shall conform to 3M™ All Weather Paint, or approved equal. Paint shall be applied per manufactures specifications.

2.11-8 SNOW-PLOWABLE RAISED PAVEMENT MARKERS

Shall conform to Section 235 of the VDOT Specs. For One Way and Two Way Markers.

2.11-9 MATERIAL ACCEPTANCE

Contractor shall furnish certification of materials used and certification that the project was constructed according to contract requirements. The certification shall consist of a summary showing the kind and quantity of materials. This certification shall be provided for work units accomplished at the time of invoicing for final payment.

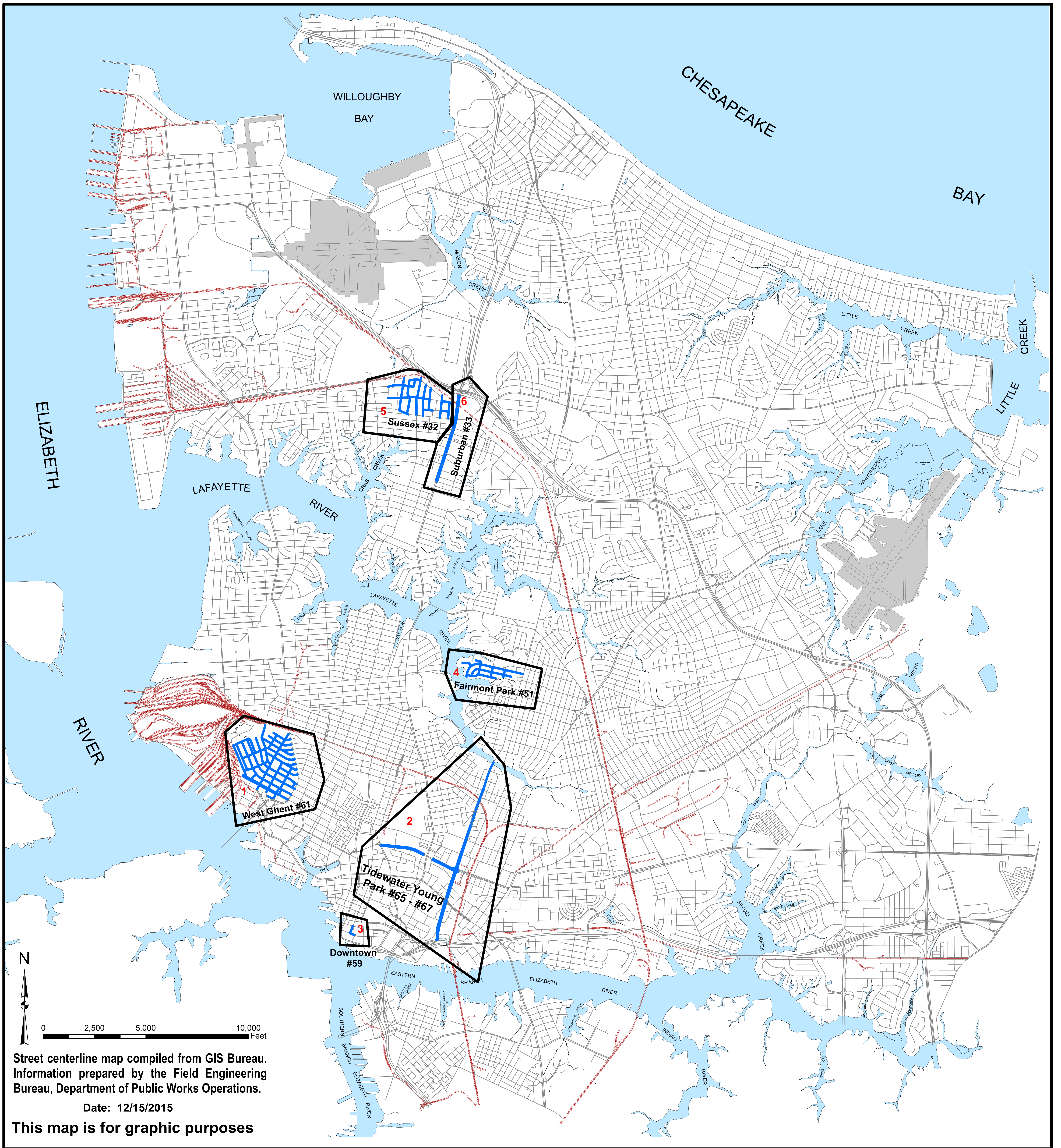
The Contractor shall preserve for inspection by the City of Norfolk invoices and records of the materials utilized in the work until such time as final acceptance and payment is made under this contract.

END OF SECTION

NORFOLK ARTERIAL STREETS
(*Including Downtown Area)

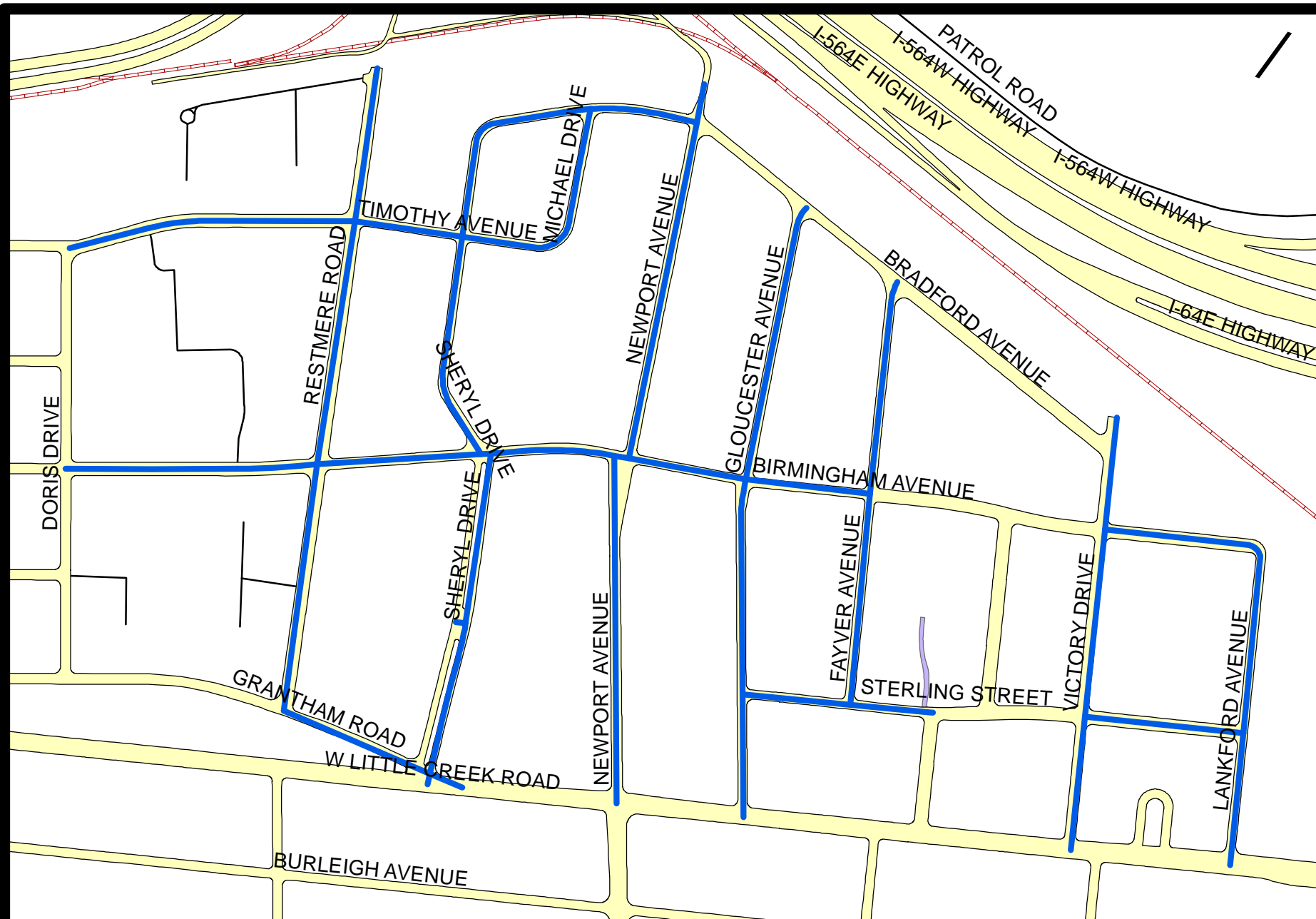
Norfolk Arterials	
4 th View St Admiral Taussing Blvd (Hampton Blvd to I564) Boush St (Main St to Brambleton Ave) Brambleton Ave Campostella Rd Church St (Monticello Ave to Granby St) Duke St (Brambleton Ave to Boush St) Granby St (Church St to I64) Hampton Blvd Little Creek Rd (Shore Dr to I64) Military Hwy Monticello Ave (St Paul's Blvd to Church St) Northampton Blvd Norview Ave (Azalea Garden Rd to I64) Ocean View Ave (Shore Dr to 4 th View St) Park Ave (Virginia Beach Blvd to Princess Anne Rd) Princess Anne Rd (Park Ave to Military Hwy) Shore Dr St Paul's Blvd (Monticello Ave to Market St) Terminal Blvd Tidewater Dr (Little Creek Rd to Berkley Bridge) Virginia Beach Blvd (East City Line to Monticello Ave) Waterside Dr	21 st St (Hampton Blvd to Monticello Ave) 26 th St (Hampton Blvd to Lafayette Blvd) 27 th St (Hampton Blvd to Lafayette Blvd) 38 th St (Hampton Blvd to Granby St) Azalea Garden Rd (Virginia Beach Blvd to Little Creek Rd) Bainbridge Blvd (South Main St to City Line) Ballentine Blvd (Westminster Ave to Lafayette Blvd) Bay Ave (Naval Gate to Granby St) Bayview Blvd (Granby St to Capeview Ave) Berkley Ave (Ligon St to Indian River Rd) Berkley Ave Extended (Fauquier Ave to Campostella Rd) Boush St (Brambleton Ave to Virginia Beach Blvd) Chesapeake Blvd (Ocean View Ave to Lafayette Blvd) Church St (Wood St to Monticello Ave) City Hall Ave (Boush St to I264) Colley Ave (53 rd St to Brambleton Ave) Cromwell Rd Granby St (I64 to Ocean View Ave) Indian River Rd (Berkley Ave to City Line) Ingleside Rd (Cromwell Rd to Virginia Beach Blvd) Jamestown Crescent (Hampton Blvd to 53 rd St) Johnstons Rd (Sewells Point Rd to Little Creek Rd) Kempsville Rd Lafayette Blvd (Dupont Cir to Chesapeake Blvd) Liberty St (State St to City Line) Little Creek Rd (I64 to Hampton Blvd) Llewellyn Ave Monticello Ave (St Paul's Blvd to City Hall Ave) Newtown Rd (Kempsville Rd to North City Line) Norview Ave (I64 to Tidewater Dr) Ocean Ave (Granby St to Bay Ave) Olney Rd (Duke St to Colley Ave) Park Ave (Brambleton Ave to Virginia Beach Blvd) Princess Anne Rd (Hampton Blvd to Park Ave) Robin Hood Rd (Chesapeake Blvd to Military Hwy) Sewells Point Rd (Princess Anne Rd to Little Creek Rd) South Main St (Bainbridge Blvd to Berkley Ave) St Paul's Blvd (Market St to Waterside Dr) State St Thole St Tidewater Dr (Ocean View Ave to Little Creek Rd) Virginia Beach Blvd (Monticello Ave to Llewellyn Ave) Wesleyan Dr Willow Wood Dr (Tidewater Dr to Granby St) Wilson Rd

***Downtown Area – the area bounded by Brambleton Avenue to the North, St Paul's Boulevard to the East, Boush Street to the West, and the Elizabeth River to the South.**



Pavement Management Program

■ FY-16 Resurfacing



Street centerline map compiled from GIS Bureau.
Rating information prepared by the Operations
Division, Department of Public Works.
This map is for graphic purposes only.

April, 2015

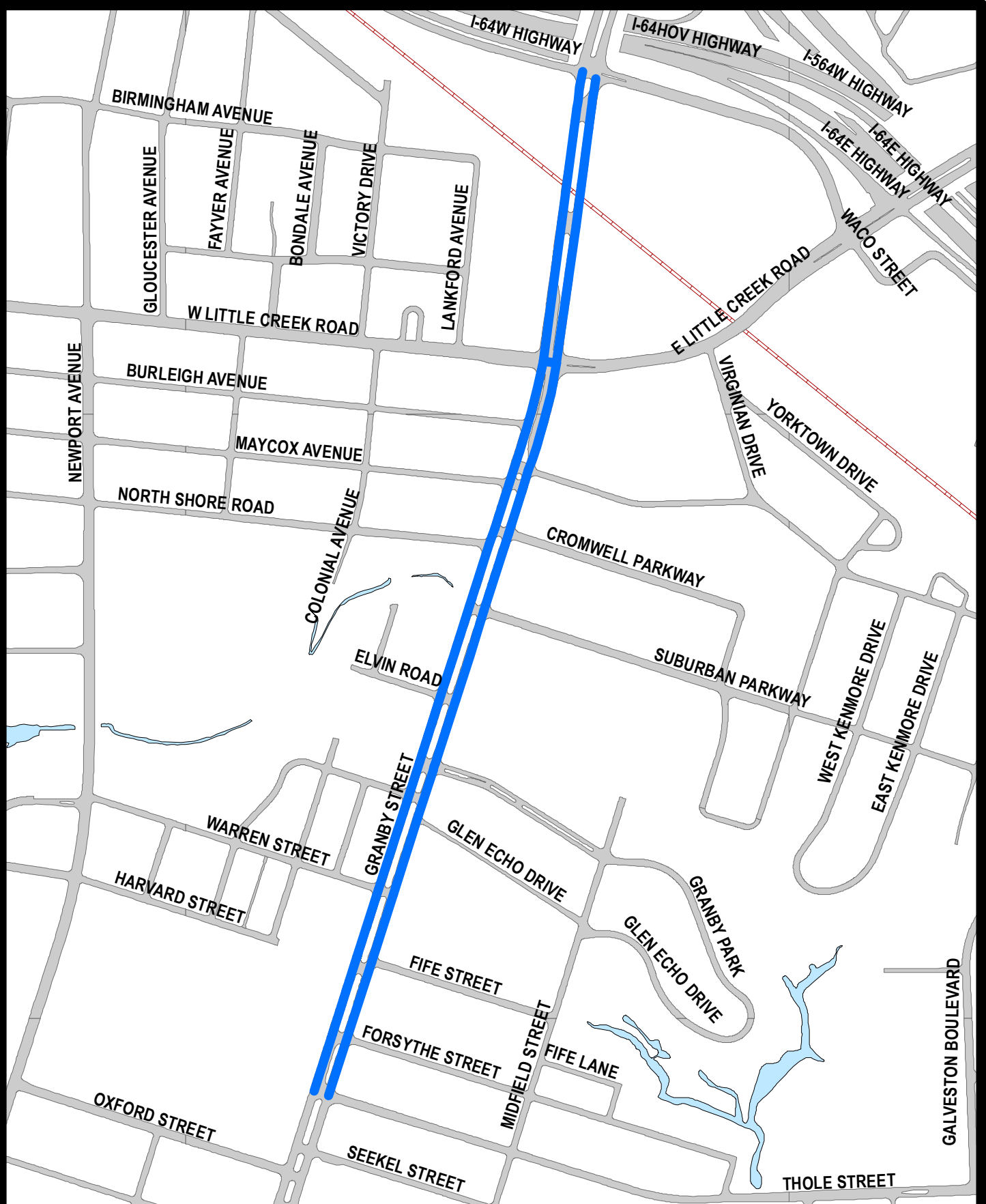
Sussex #32

 Streets To Be Resurfaced

Not To Scale



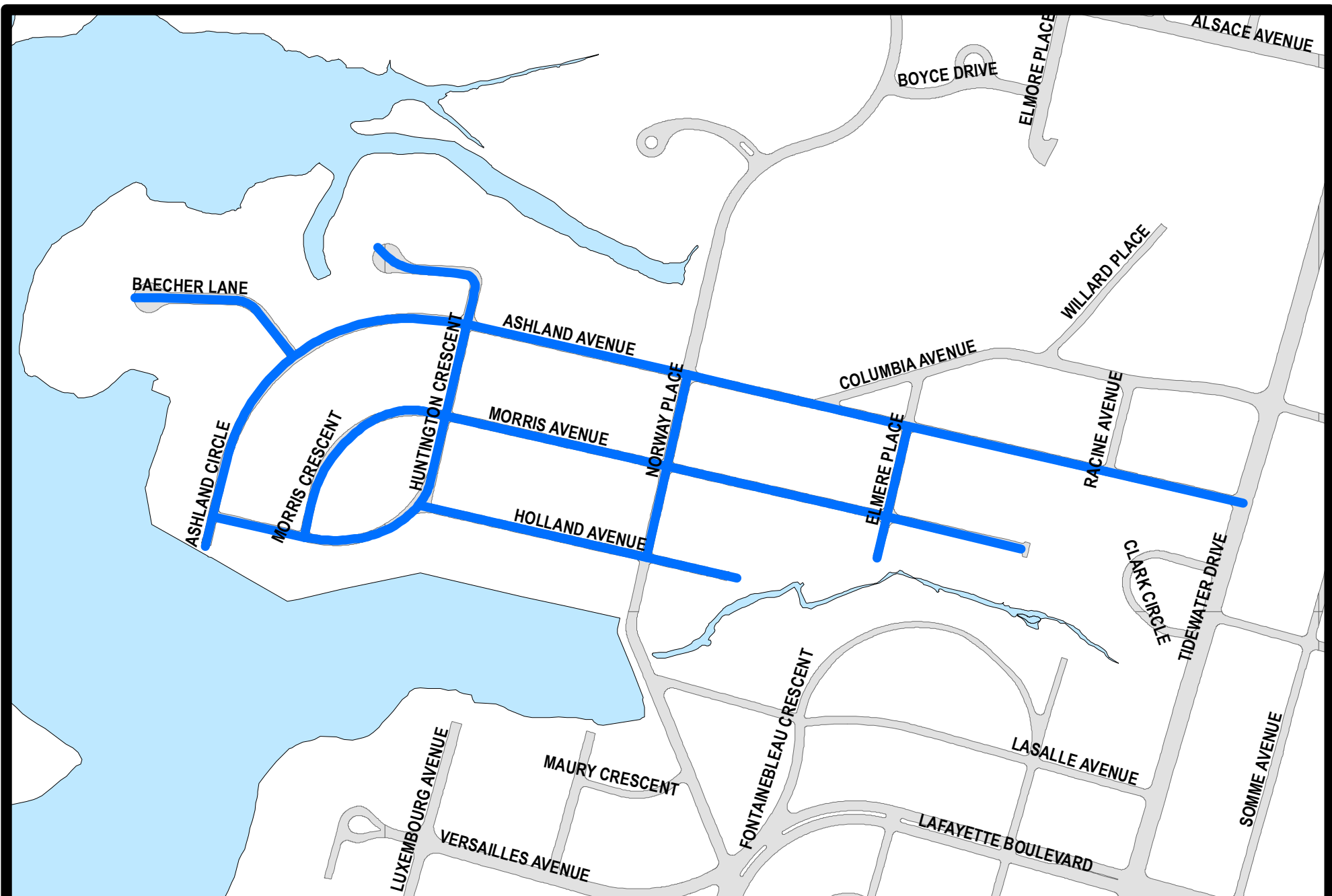
**City of
Norfolk**



Not To Scale

SUBURBAN #33

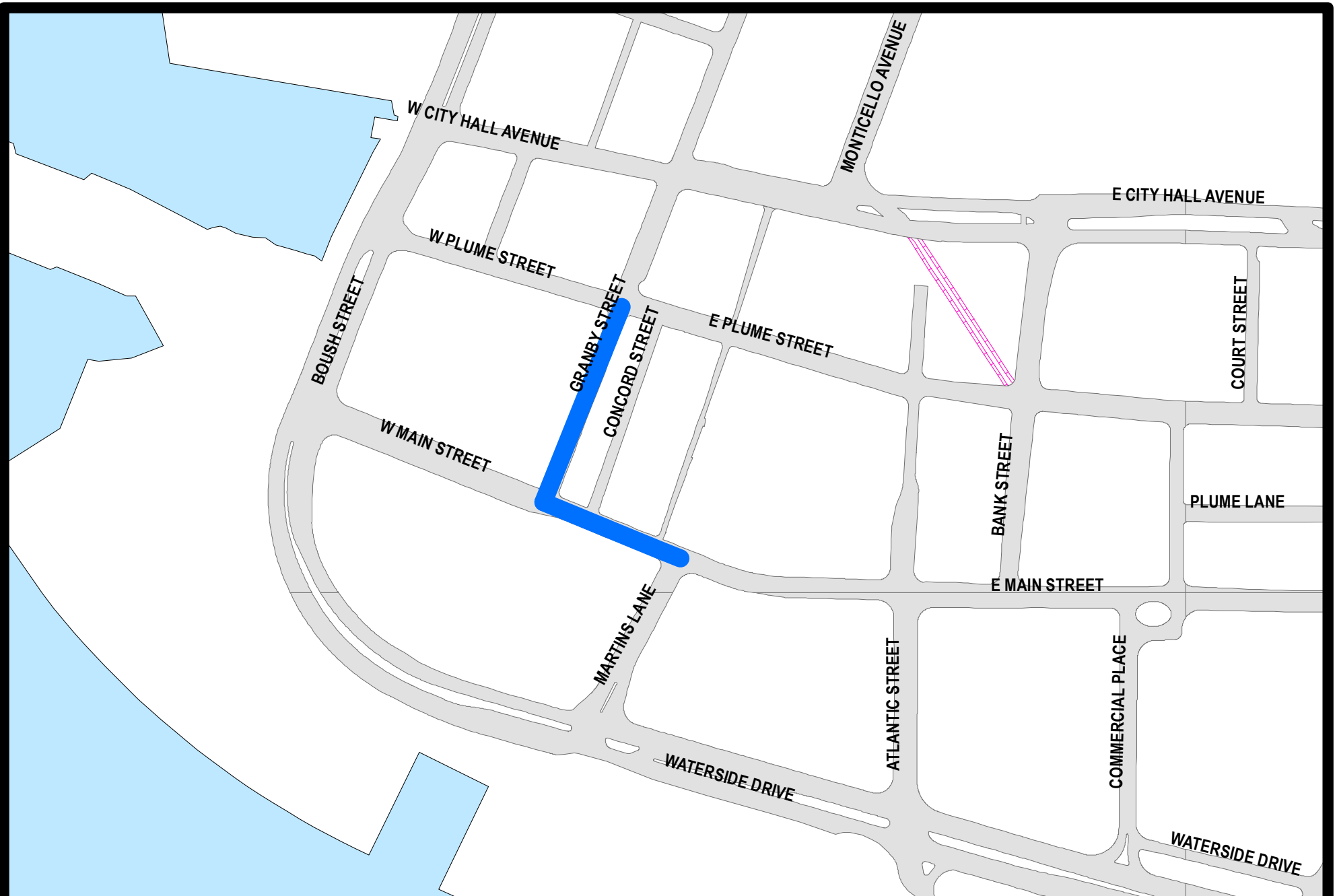
 Streets To Be Resurfaced in FY-16



Not To Scale

FAIRMONT PARK #51

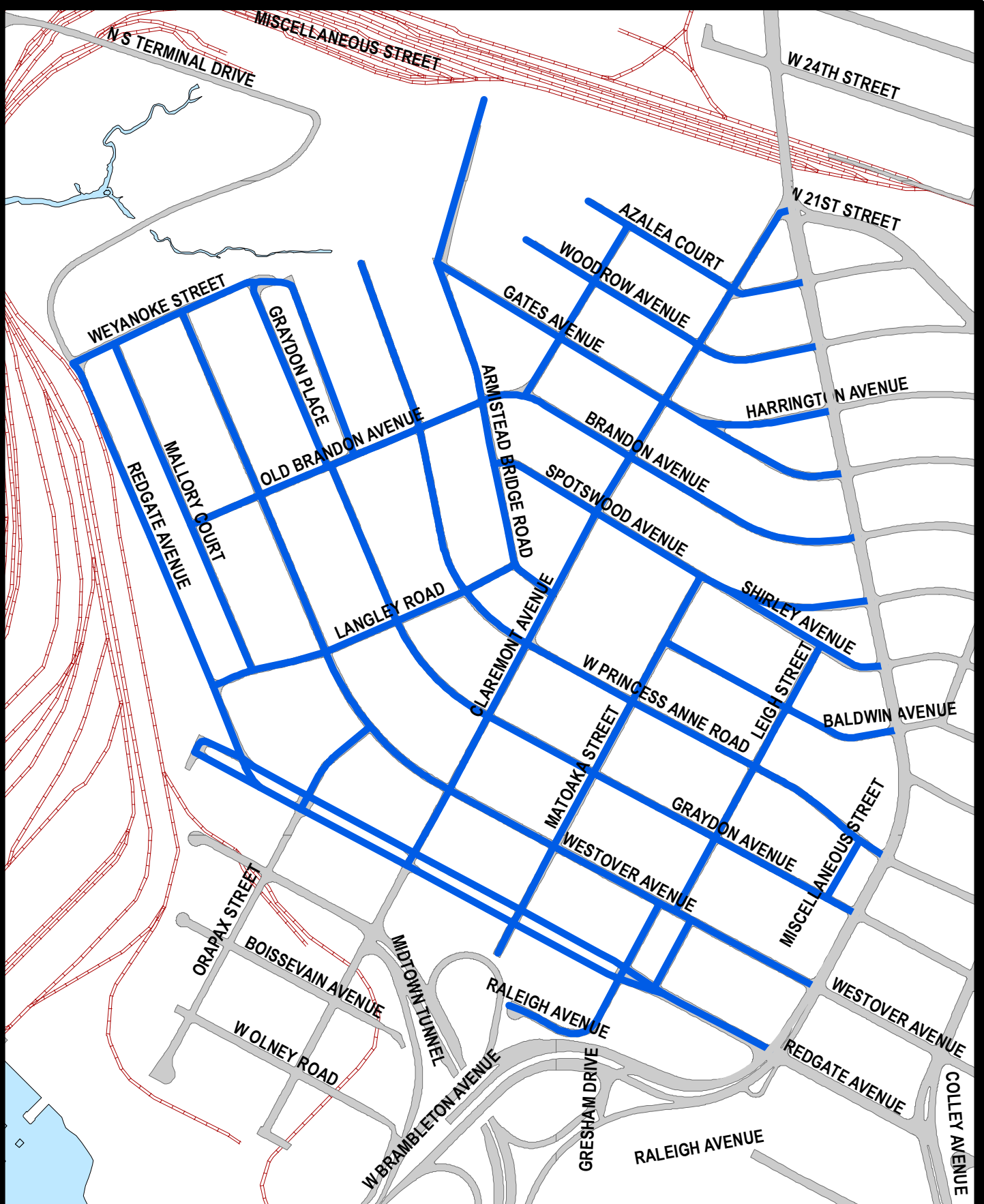
 Streets To Be Resurfaced in FY-16



Not To Scale

DOWNTOWN #59

 Streets To Be Resurfaced in FY-16

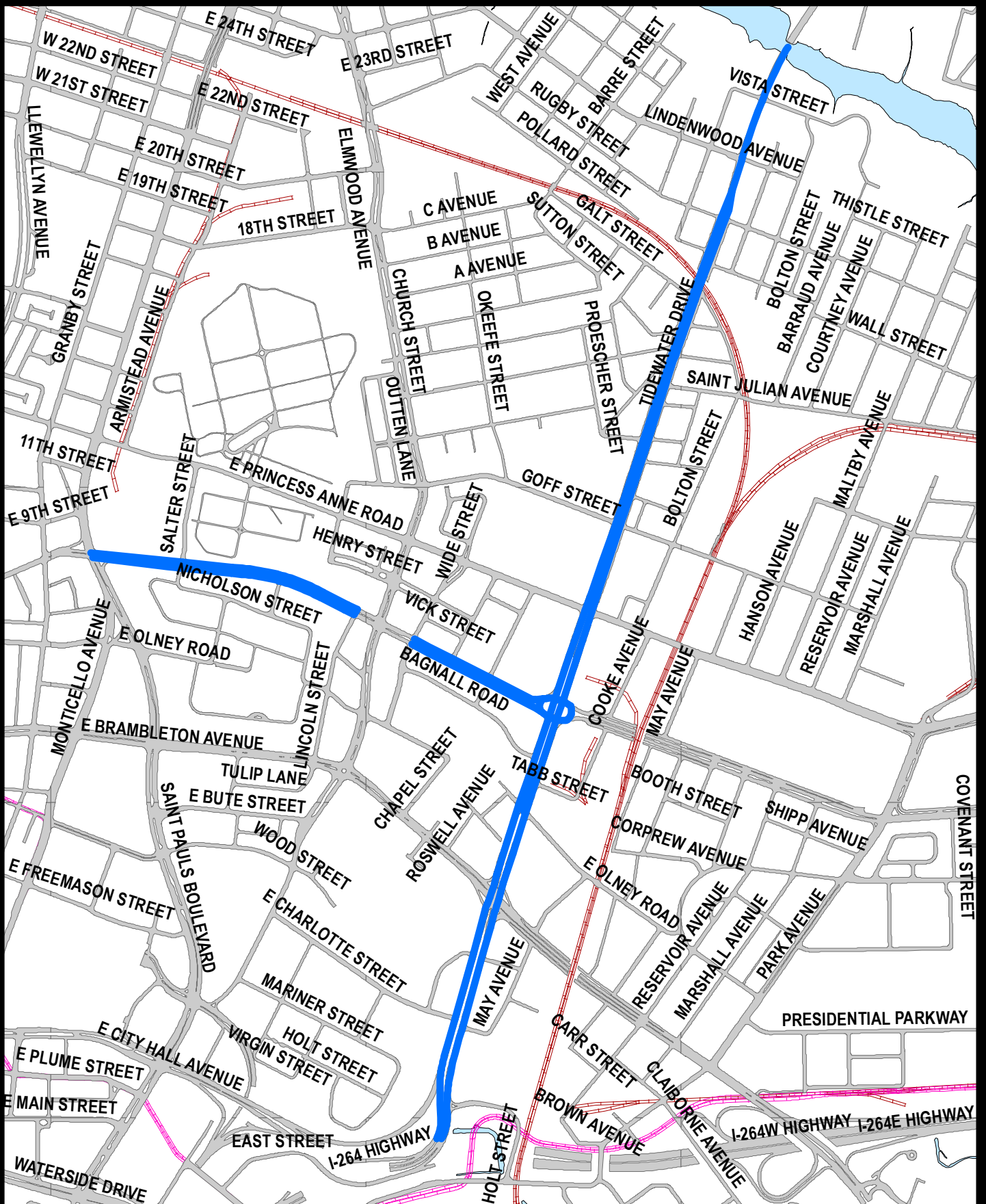


Not To Scale

WEST GHENT_#61

Streets To Be Resurfaced in FY-16

Department of
Public Works
City of Norfolk
THIS MAP IS FOR GRAPHIC PURPOSES ONLY
It was created by the Division of Operation-Engineering
and Environmental Management on December 15, 2015



Not To Scale

TIDEWATER YOUNG PARK #65 - #67

Streets To Be Resurfaced in FY-16

Department of
Public Works
City of Norfolk
THIS MAP IS FOR GRAPHIC PURPOSES ONLY
It was created by the Division of Operation-Engineering
and Environmental Management on December 15, 2015

12' SPEED HUMP TYPICAL DETAILS

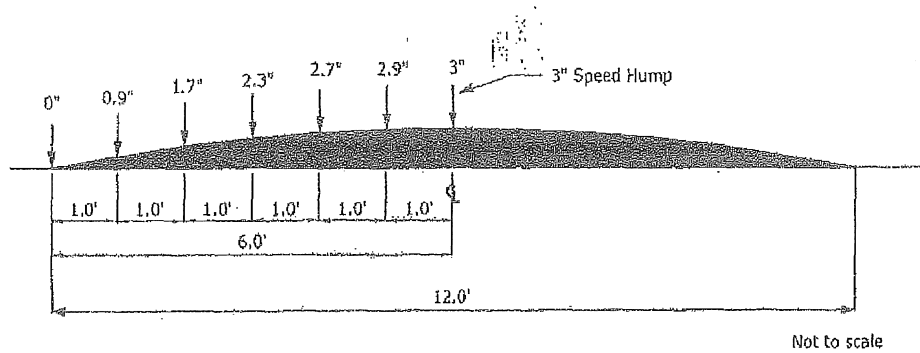


Figure 1 - Typical Speed Hump Dimensions

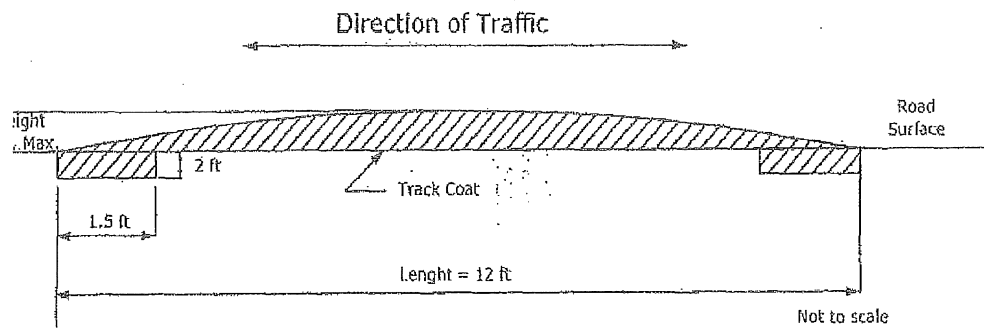


Figure 2 - speed Hump construction showing road surface excavation at taper edges to prevent spalling

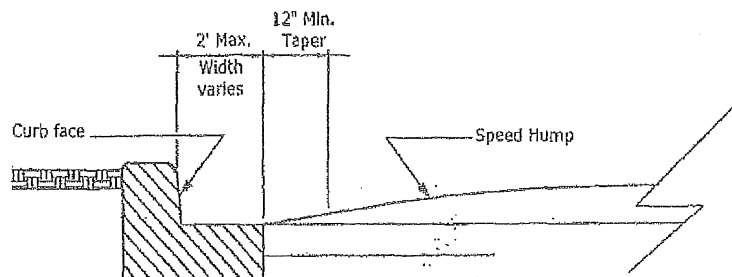
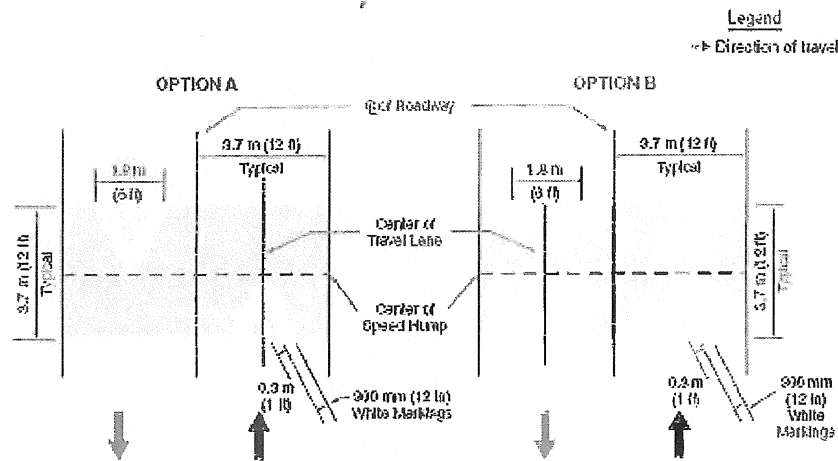


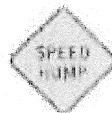
Figure 3 - Speed Hump taper and edge treatments

Figure 3B-29. Examples of Pavement Markings for Speed Humps Without Crosswalks



OPTION B to be used for speed hump pavement markings

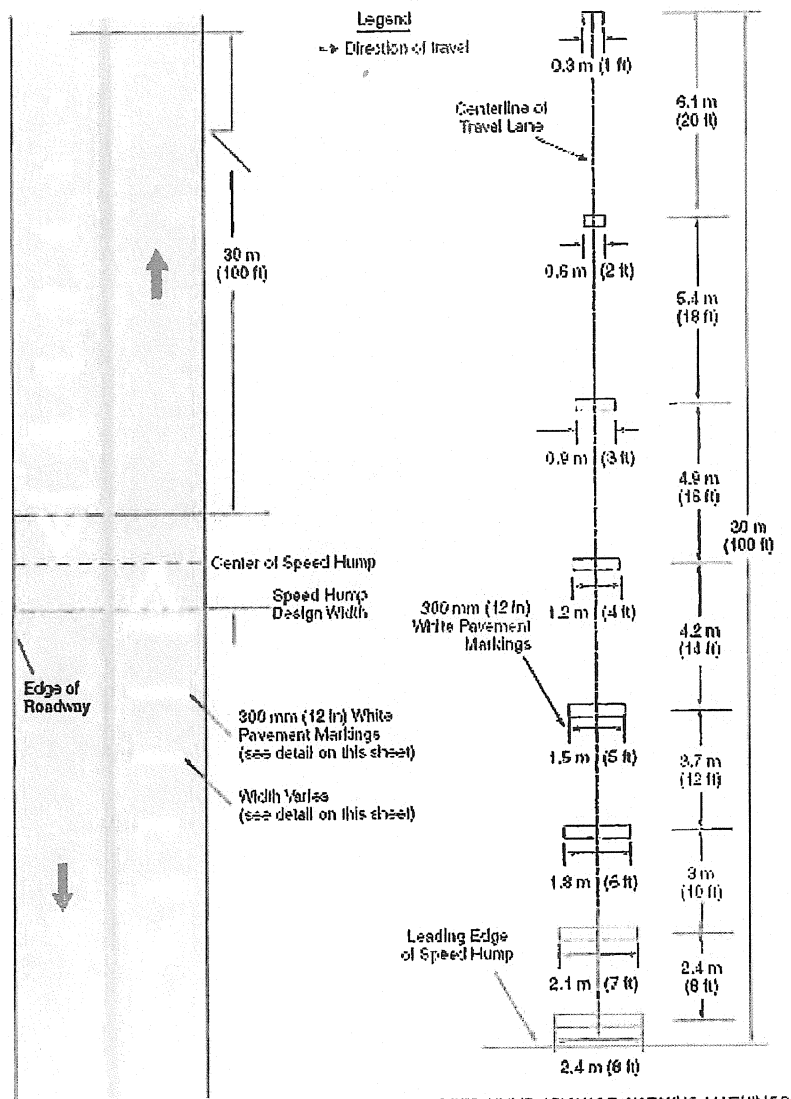
*Example of Approach Signage for Speed Humps
(Post approximately 100 feet in advance of each speed hump)*



W17-1

with 15 MPH Advisory Speed sign

Figure 3B-31. Examples of Advance Warning Markings for Speed Humps

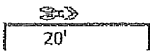
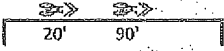
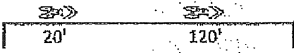

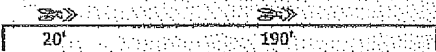
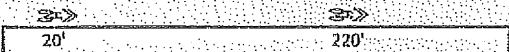
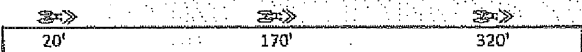
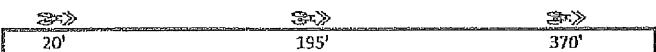
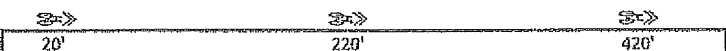




DETAIL—SPEED HUMP ADVANCE WARNING MARKINGS

Sharrow Placement for Blocks of Various Lengths

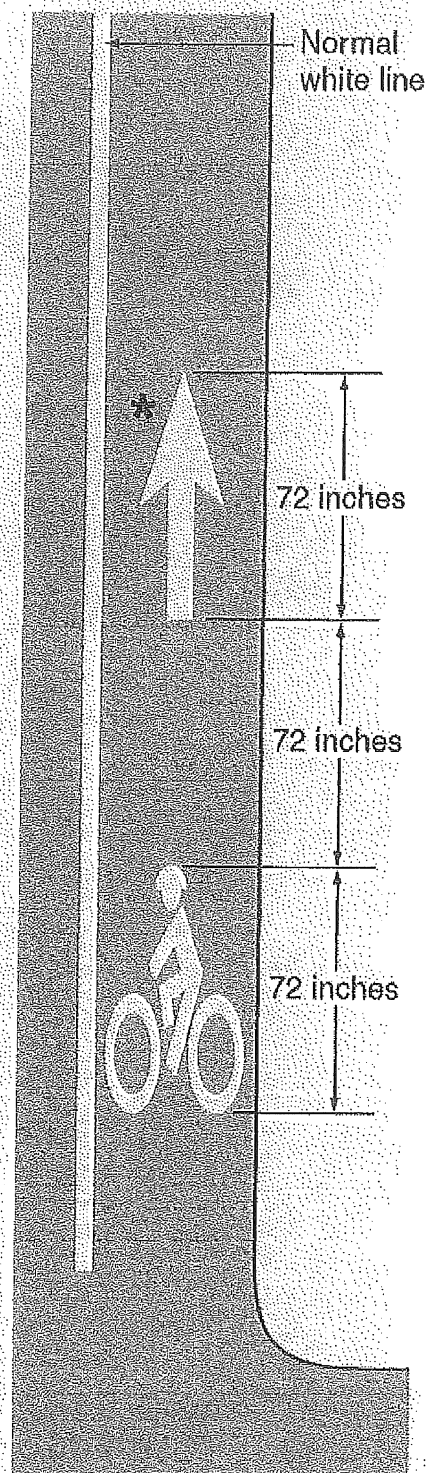
City of Norfolk, Dept. of Public Works, Div. of Transportation

- Sharrows should be placed 20 feet beyond the curb return after an intersection
- For blocks of 150 to 350 feet in length (typical block length), there should be two Sharrows per block, with the second Sharrow placed approximately 2/3 of the distance between the curb returns
- For blocks less than 150 feet in length, a minimum of one Sharrow should be used
- For blocks of more than 350 to 600 feet in length, Sharrows should be placed at intervals of 150 to 200 feet as measured from the first Sharrow on the block
- For blocks of more than 600 feet to 1000 feet in length, Sharrows should be placed at intervals of 250 feet as measured from the first Sharrow on the block
- For blocks of more than 1000 feet in length, Sharrows should be placed at intervals of 275 feet as measured from the first Sharrow on the block

Block Length	Spacing	Direction of Travel: →
100'	N/A	
150'	70'	
200'	100'	
250'	135'	
300'	170'	
350'	200'	
400'	150'	
450'	175'	
500'	200'	
550'	175'	
600'	150'	

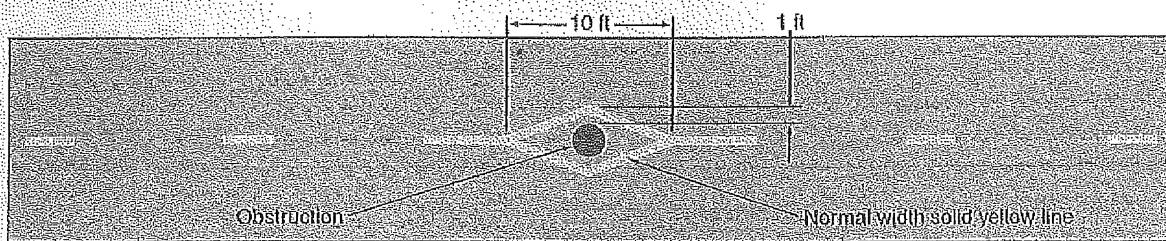
• Distance is measured from top of first to base of next sharrow.

NOT TO SCALE

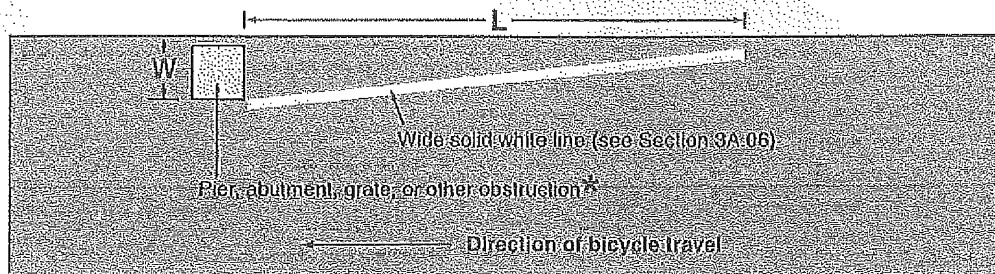


B - Helmeted Bicyclist Symbol

Figure 9C-8. Examples of Obstruction Pavement Markings



A - Obstruction within the path

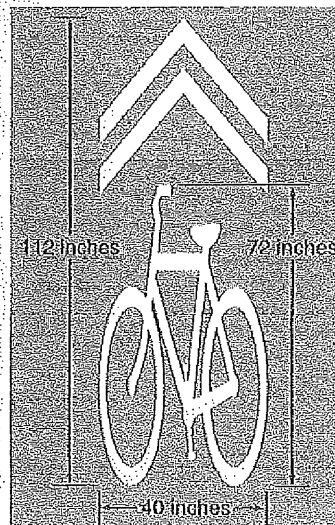


B - Obstruction at edge of path or roadway

$L = WS$, where W is the offset in feet and S is bicycle approach speed in mph

★ Provide an additional foot of offset for a raised obstruction and use the formula
 $L = (W+1) S$ for the taper length

Figure 9C-9. Shared Lane Marking



Loop Detector Replacement Report

Location: _____ Date: _____

Loop Direction: _____ By: _____

Detector Description: _____

_____ Measure Loop Inductance. Range should fall within 50-700 uh.
Value _____ uh.

* See Table 1 for exceptable value range.

_____ Measure Frequency of Loop. Value _____ Khz.

_____ Measure Loop Delta L. Values High _____ Low _____

_____ Measure Loop Quality Factor "Q". Value _____

_____ Megger between earth ground and loop. Value should be greater than 100 M
Ohms. If grounded, separate the splice then narrow the Fault to the loop
or lead-in. Reset detector when completed. Value _____

_____ Check for crosstalk. If so, adjust the frequency between detectors.

_____ Check sensitivity of detector. Adjust sensitivity as required.

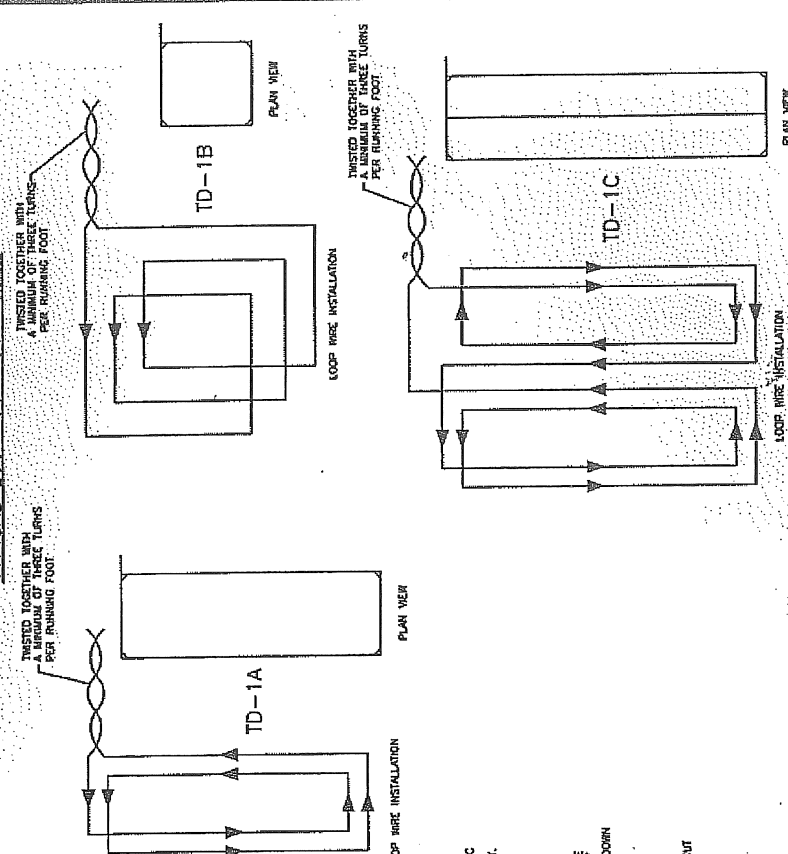
DETECTOR SETTINGS

Channel No. _____

	<u>Existing</u>	<u>New</u>
Loop Frequency	_____	_____
Sensitivity	_____	_____
Mode	_____	_____
Delay Time	_____	_____

Comments: _____

TYPICAL LOOP CONFIGURATIONS

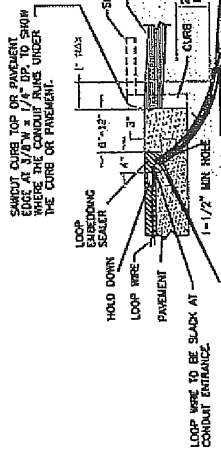


3/8" SAW CUT

Twisted together with a minimum of three turns per running foot

TOP VIEW

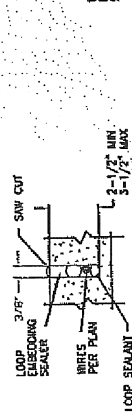
NOTE: CURB DETAIL IS SHOWN BY THE DASHED LINES. RUN THE CONDUIT UNDER THE CURB OR PAVEMENT.



DETAIL A-CROSSING PAVEMENT JOINTS OR CRACKS

TOP VIEW

NOTE: CURB DETAIL IS SHOWN BY THE DASHED LINES. RUN THE CONDUIT UNDER THE CURB OR PAVEMENT.



SECTION: E-E

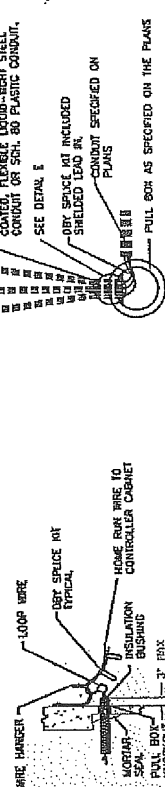
CONCRETE OR ASPHALT (NO SCALE)

NOTE: ON BOTH CORNER DETAILS, PLACE THE LOOP WIRE NEAR THE CENTER OF THE CURB TO ALLOW THE SEALANT TO FLOW ON BOTH SIDES OF THE WIRE.

DETAIL B-CORNER DETAILS

TOP VIEW

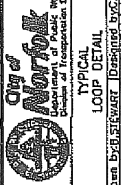
NOTE: CURB DETAIL IS SHOWN BY THE DASHED LINES. RUN THE CONDUIT UNDER THE CURB OR PAVEMENT.



DETAIL E

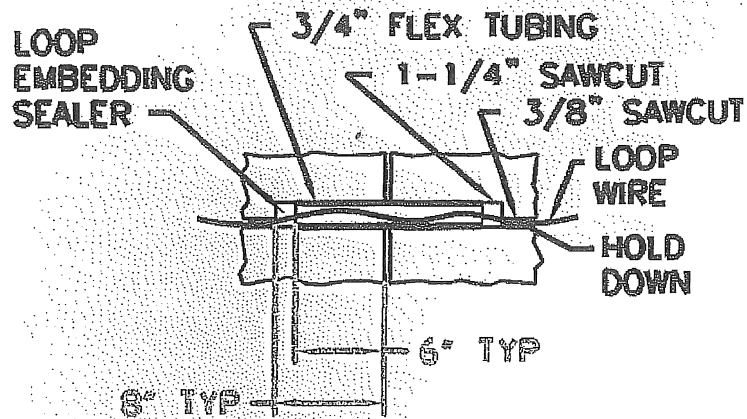
- NOTES:
1. LOOP WIRE MUST BE IN ACCORDANCE WITH SPECIFICATIONS AND SPECIAL PROVISIONS.
 2. EACH LOOP SHALL BE IDENTIFIED BY LANE AND PERMANENTLY TAGGED IN EACH JUNCTION BOX AND IN THE CONTROLLER CABINET.
 3. ADD ONE TURN TO ANY LOOP OVER THREE INCHES DEEP.
 4. SAWCUTS SHALL BE DEEP ENOUGH TO ALLOW A MINIMUM OF ONE INCH OF SEALANT OVER WIRES.
 5. MULTIPLE LOOPS CONNECTED TO THE SAME DETECTOR CHANNEL SHALL HAVE REVERSED POLARITIES AND BE CONNECTED IN SERIES.
 6. ALL LOOPS TO BE GUARANTEED TO REGISTER 5000 OHMS (AT 500 VOLTS) MINIMUM FOR A

REVISIONS	DATE	DESCRIPTION	BY
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

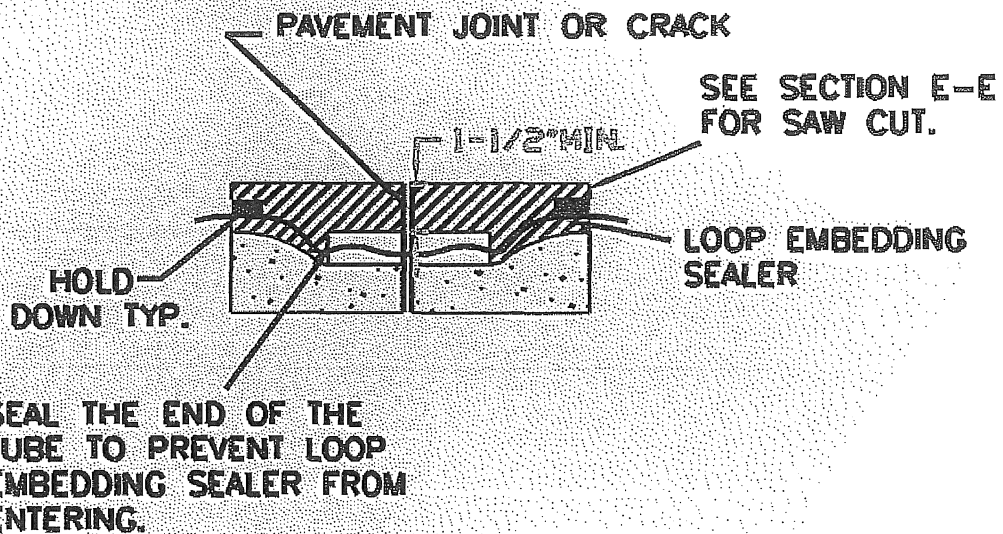


TYPICAL LOOP DETAIL

Drawn By: J. STANLEY Date: 10/1/88



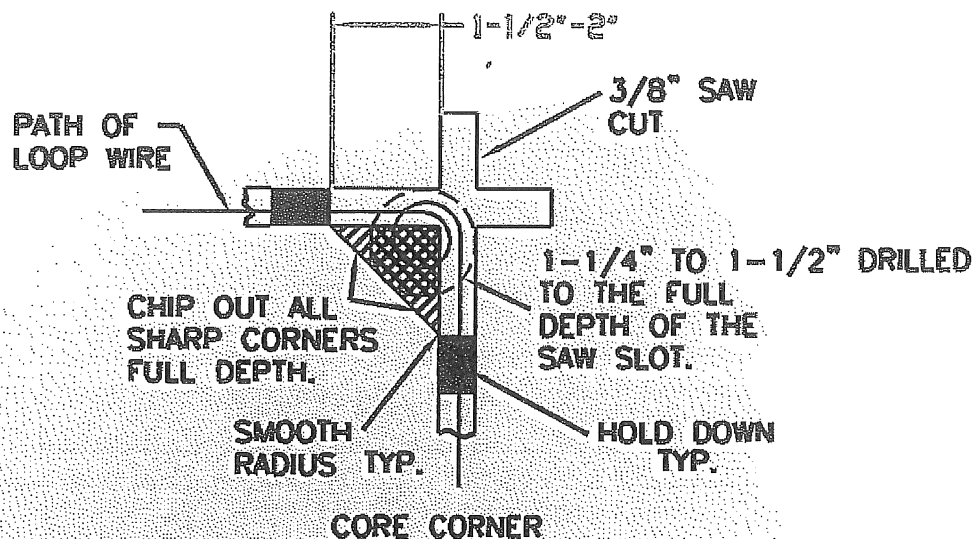
TOP VIEW



SIDE VIEW

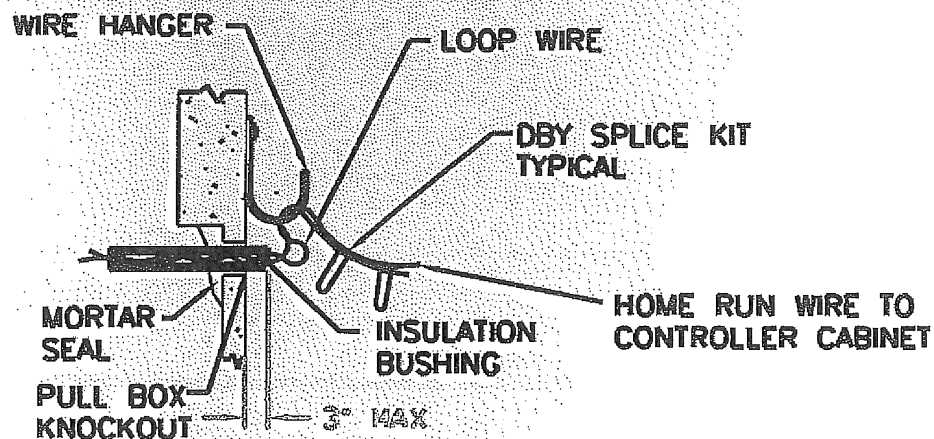
DETAIL A-CROSSING PAVEMENT
JOINTS OR CRACKS

(NO SCALE)

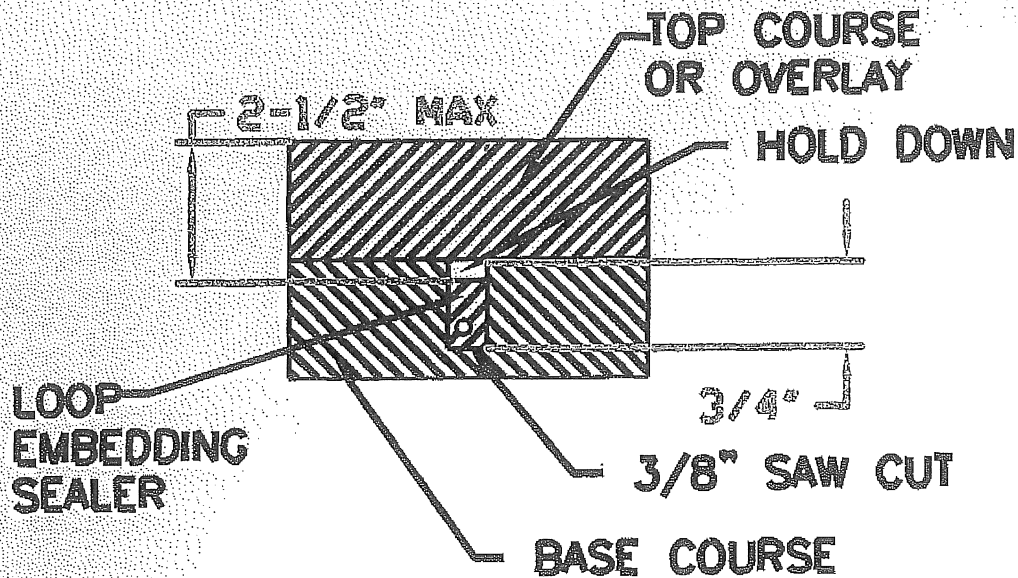


NOTE: ON BOTH CORNER DETAILS PLACE THE LOOP NEAR THE CENTER OF THE CORNER TO ALLOW THE SEALANT TO FLOW ON BOTH SIDES OF THE WIRE.

DETAIL-B CORNER DETAILS (NO SCALE)



DETAIL E (NO SCALE)

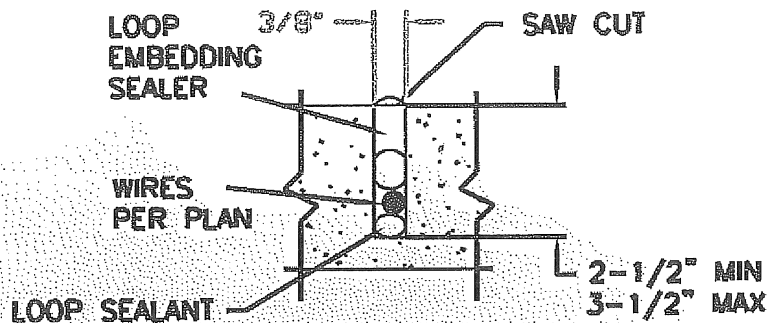


SECTION: E-E

ASPHALT OVERLAY
(NO SCALE)

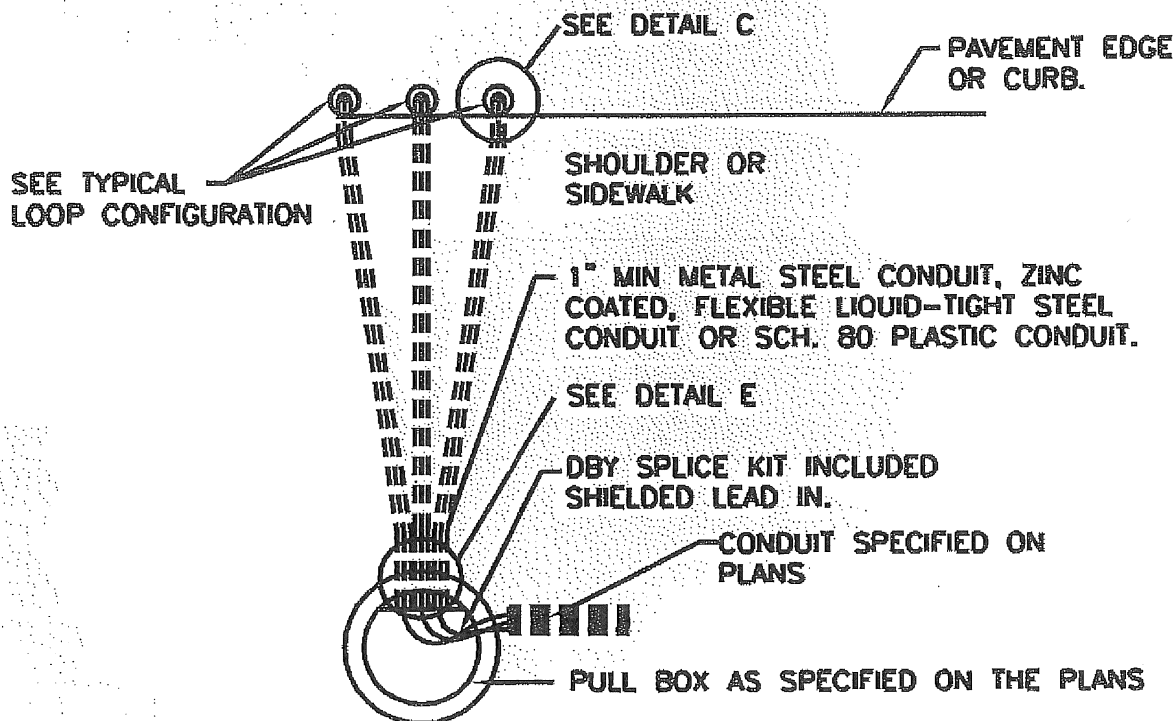
NOTES:

1. LOOP WIRE MUST BE IN ACCORDANCE WITH SPECIFICATIONS AND SPECIAL PROVISIONS.
2. EACH LOOP SHALL BE IDENTIFIED BY LANE AND PERMANENTLY TAGGED IN EACH JUNCTION BOX AND THE CONTROLLER CABINET.
3. ADD ONE TURN TO ANY LOOP OVER THREE INCHES DEEP.
4. SAWCUTS SHALL BE DEEP ENOUGH TO ALLOW A MINIMUM OF ONE INCH OF SEALANT OVER WIRES.
5. MULTIPLE LOOPS CONNECTED TO THE SAME DETECTOR CHANNEL SHALL HAVE REVERSED POLARITIES AND BE CONNECTED IN SERIES.
6. ALL LOOPS TO BE GUARANTEED TO REGISTER 500M OHMS (AT 500 VOLTS) MINIMUM FOR A PERIOD OF ONE YEAR AFTER INSTALLATION.



SECTION: E-E

CONCRETE OR ASPHALT
(NO SCALE)



LOOP INSTALLATION DETAILS

(NO SCALE)

TYPICAL LOOP CONFIGURATIONS

TWISTED TOGETHER WITH
A MINIMUM OF THREE TURNS
PER RUNNING FOOT

TWISTED TOGETHER WITH
A MINIMUM OF THREE TURNS
PER RUNNING FOOT

TD-1B

PLAN VIEW

LOOP WIRE INSTALLATION

TWISTED TOGETHER WITH
A MINIMUM OF THREE TURNS
PER RUNNING FOOT

TD-1C

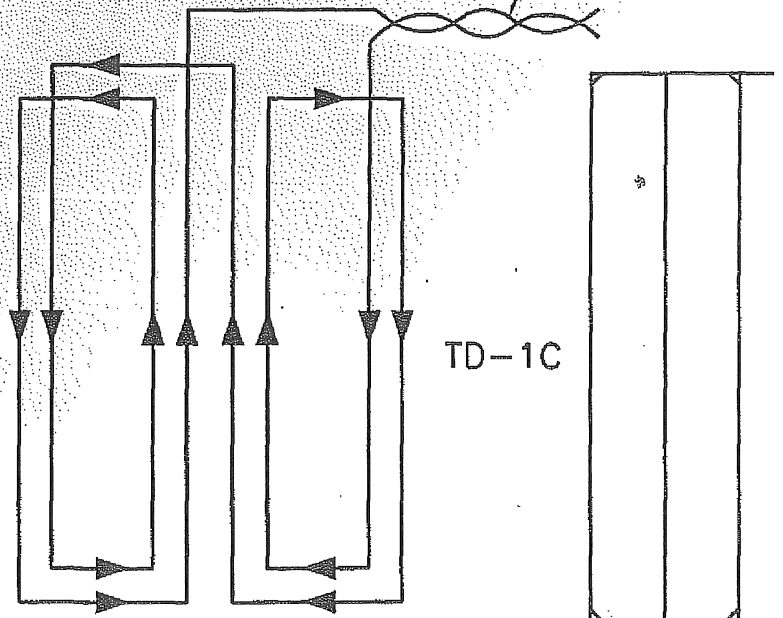
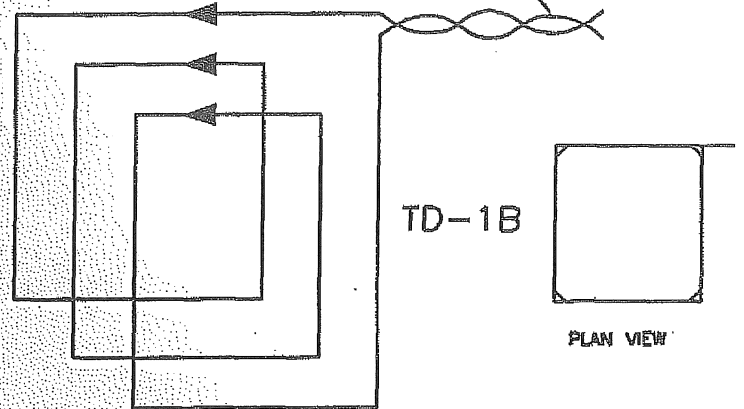
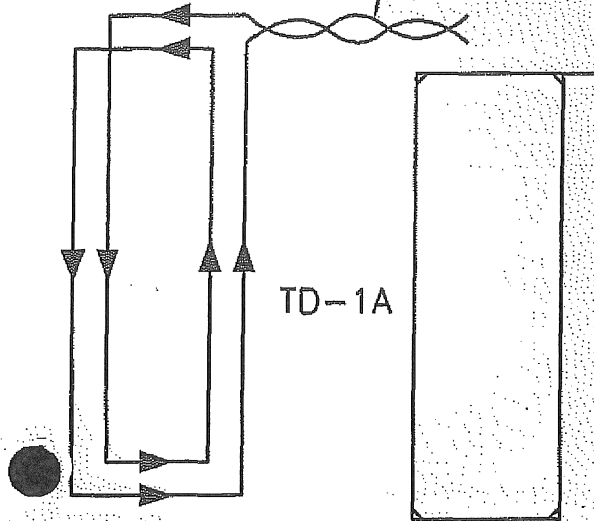
PLAN VIEW

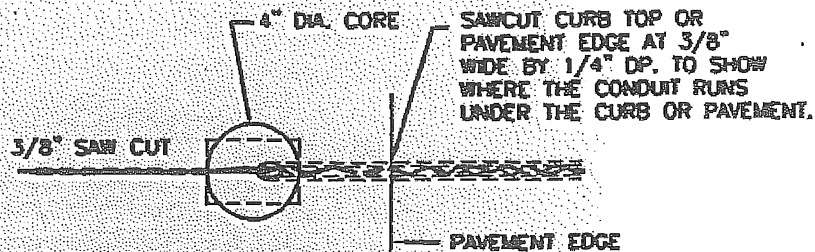
LOOP WIRE INSTALLATION

TD-1A

PLAN VIEW

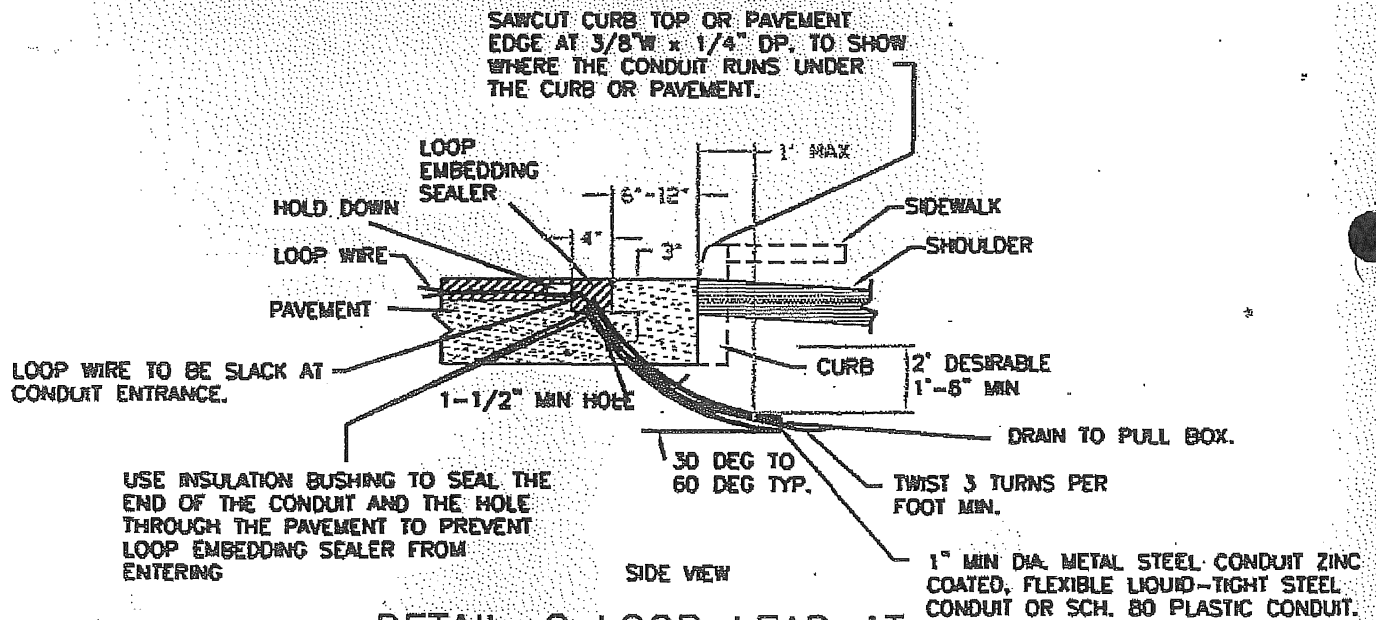
LOOP WIRE INSTALLATION





NOTE: CURB DETAIL IS SHOWN BY THE DASHED LINES
RUN THE CONDUIT UNDER THE CURB.

TOP VIEW



Correct



Incorrect

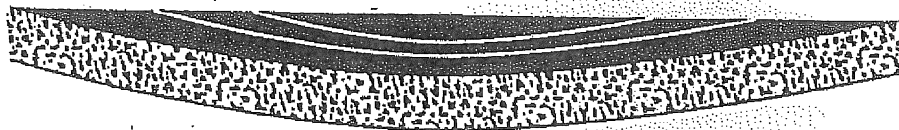


Figure 5.03 Correctly Placed Leveling Wedges Ensure Smoother Pavements

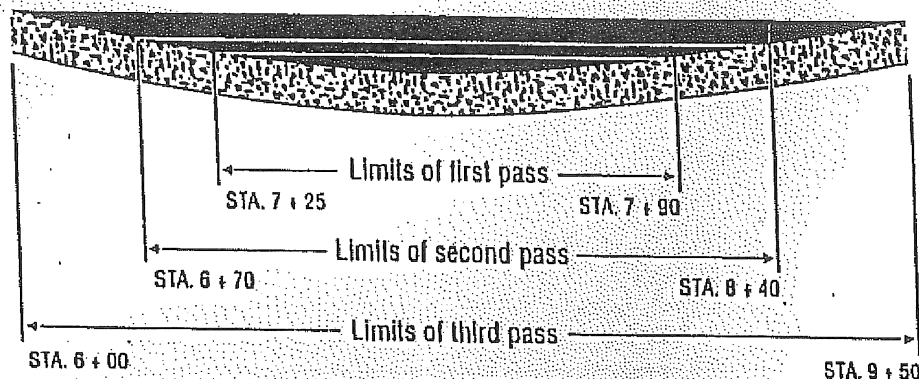


Figure 5.04 Limits for Multiple-Layer Leveling Wedges Should Be Determined by Level

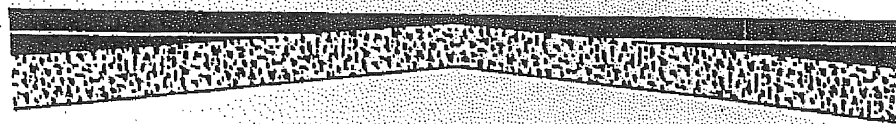


Figure 5.05 Correctly Placed Leveling Wedges for Overcoming Excessive Crown

Caution No asphalt materials should be placed on an existing pavement containing excessive moisture. All existing surfaces should be dry and free of moisture. Moisture trapped deep in the pavement layer could cause moisture damage in the underlying pavement layers, resulting in the loss of stability and rutting. Moisture from the emulsified tack material is not considered a problem as this is surface moisture and not internal.